

# The Northwest.

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## SENATOR EDMUNDS ON MOUNT TACOMA.

The Visit of the Acting Vice-President to the Great Tacoma Glacier.

From the Portland Oregonian.

NEW TACOMA, W. T., June 23d.—Senator Edmunds, accompanied by T. F. Oakes, First Vice-President of the N. P. R. R., Lieutenant Arthur, U. S. N., and J. M. Buckley, Esq., General Manager of the Western Division of the line, left Tacoma on Wednesday the 20th, for the glaciers reported as existent on Mount Tacoma, by Mr. B. Willis of the geological survey. They spent two days on the way to the glaciers in inspection of the Carbon Hill coal system, and on the third day returned from the foot of the glaciers to Tacoma, arriving at 7 P. M. Next morning they left for Kalama by special train, accompanied by a correspondent of *The Oregonian*, to whom Senator Edmunds said, in reference to his trip:

"I absolutely never believed there was anything in America comparable in grandeur to the scenery I have seen on my necessarily brief visit to Mount Tacoma. The access, thanks to the well-cut trails made by the engineer of the Northern Pacific Railroad, is easy, and as I learn from Mr. Oakes, will be made as easy as a carriage road, or nearly, within a month from now. To express half of my admiration for the transcendent grandeur of every part of the scenery, and especially of the glacier, would be impossible. A more perfect glacier, in all the features found in such a phenomena, it would be impossible to find. Certainly, no Alpine glacier excels it in perfection, and yet, as I was given to understand, it is the least, in point of size, of all that have been discovered on this mountain. I cannot help saying, that I am thoroughly convinced that no resort in the United States will be so much sought after as this, when once people come to know that what men cross the Atlantic to see, can be seen in equal splendor, if not surpassed, at home.

"I hear doubts expressed as to whether Mt. Tacoma can be ascended; but a steady head, a sure foot, a reliable alpenstock, and a little determination could probably accomplish what is, of course, a very daring feat. New Tacoma has a fortune

in the fact that it is the best point from which to start to this, the grandest of all American mountains, and I learn from Mr. Oakes that guides and all conveniences will be afforded to tourists desirous of visiting this magnificent scene. If Switzerland is rightly called the play-ground of Europe, I am satisfied that around the base of Mt. Tacoma will become a prominent place of resort, not for Americans only, but for the world besides.

"I need not deal with the particulars of our journey, as you can get them minutely logged by my young friend Lieutenant Arthur. Let me only add this much in this regard, that nothing could be, to me at least, more enjoyable than the gradual approach to the inner circle of the court where the monarch of our northern mountains reigns supreme. The emotions stirred in one's breast

exhibited there and what is seen in approaching this grand, isolated mountain. I could give you the dimensions, approximately, of the glacier we visited, but it would be unnecessary, as I understand your paper is about to send a special expedition to the scene in a day or two. I consider you will be doing good service by so doing. I would be willing to go 500 miles again to see that scene. This continent is yet in ignorance of the existence of what will be one of the grandest show places, as well as a sanitarium.

"This morning, in spite of the fact that we came from the glacier to Tacoma in one day, and felt just as used up as you represented us on our arrival last night, we felt every one of us this morning as lively as possible, and, with the exception of a little stiffness, just as capable of the same exertion as we were before we started."

"How did you celebrate your advent at the base of the glacier?" asked the inquisitor.

"You must ask Mr. Buckley about that particular circumstance," said Mr. Edmunds. "He was the presiding priest at the pouring out of the drink offering."

"What do you think, Mr. Edmunds, of this country as a whole?"

"It is simply magnificent, as it appears to me, with reference to its timber and mineral products; but I am free to confess that there seems to me to be little elbow-room for agriculture."

"Do you know any-

thing about agriculture and the conditions under which it is successfully prosecuted?"

"I am afraid I do not," said the senator.

"Is it not the case, Mr. Edmunds, that you know a good deal more of law than of this land business?"

"It may be so," said he; "but there is not a man in America who knows more about glaciers."

THE illustration on this page gives a view of the glacier at the head of Carbon River, on the Western Shore of Mount Tacoma, and is from a sketch by Bailey Willis, Assistant Geologist of the Northern Transcontinental Survey. There are fifteen glaciers on Mount Tacoma, two of which are now accessible to tourists by paths cut through the forest from Wilkeson, thirty miles distant by rail from the town of Tacoma.



CARBON RIVER GLACIER, MT. TACOMA.

—at least they were in mine—completely defy all the powers of language to express. When we reached the foot of the glaciers, foot-sore and weary as we were, I could not help pausing in breathless silence as we viewed this majestic mass of ice, imbedded in the bosom of this gigantic monarch among Alps. If it was not the grandest of the group, as we were informed by Mr. Willis, who was one of our party, it was enough magnificence for us. The stupendous sides of the canyon in which the glacier lay, formed a setting perfect in its harmony of contrast, if the term be admissible, to the pagodas and pinnacles of the secluded mass of ice.

"I have been through the Swiss mountains, and I am compelled to own that, incredible as the assertion may appear, there is absolutely no comparison between the finest effects that are

## IRON IN MONTANA.

The Basis for an Extensive Industry found in the Rocky Mountains.

*Correspondence of The Northwest.*

MISSOULA, MONTANA, July 15th, 1883.

The Pacific States and Territories have to thank the "noble" metals for their early development and their rapid growth. But, although ores of the "useful" metals abound everywhere, it is of comparatively recent years only that these have come in for a share of attention from capitalists. The present high price of copper, brought about by its extended use in the many new electrical appliances, which daily multiply in an undreamed-of manner, has made copper mining and smelting a profitable industry all over this western coast. Lead also is produced in enormous quantities; but, whilst nearer to market lead ores are mined for the useful metal it contains, with us it would be left unnoticed were it not for a certain per cent. of the nobler silver it carries here, and we are only too glad if the price of lead in Eastern markets is high enough to pay for carrying the "crude bullion" to Eastern parting works.

The base of all industry is iron; the development of our main industry, mining and metallurgy, depend upon the price of iron; and were iron as cheap here as it is in eastern industrial centres, our industrial progress would be greatly accelerated. We know ourselves possessed of vast quantities of iron ores of all grades, of fuel and of fluxes, more than enough for all our wants, great as they are now, and as they will be in that near future when the manifold resources of the western mining Territories will be developed through their daily increasing accessibility and the vivifying touch of capital. Can iron be produced cheap enough here to compete with Eastern iron, and is there a reasonable show of success in a business untried and therefore involved in difficulties? Let us see. California—despite its cheap ocean transportation—has commenced to make iron, and the furnaces at Clipper Gap, Plumas county, despite the discouragement of a conflagration of a new plant, are now in full blast turning out a No. 1 pig iron, which, ere long, at the Judson works, will be made into bars. Colorado has had extensive iron works in operation for the past three or four years, and a Siemens converter turns out large quantities of steel for rails at the works in Pueblo; and all this proves that, despite its great railroad facilities, iron smelting can be carried on cheap in the very heart of the Rockies, yet both iron ore and fuel and fluxes have to be carried to these works quite a distance by rail. In Utah also extensive iron works are in course of erection.

What has been done elsewhere in these mountains will in time be done in Montana, provided a locality can be found where the necessary materials can be had in great quantity and of good quality, and at a low cost. Good iron ore, fair coal, cheap charcoal and limestone for flux, besides a refractory fire-clay and good building material, are but rarely found in near proximity. But where all these materials are so found, there, if iron-smelting is at all possible, a smelting-furnace should be a paying investment. It is this happy coincidence which has made the iron industry in the Cumberland Mountains of Tennessee and Georgia so very remunerative, in the absence even of a local market; there iron is produced so cheaply that it stands transportation to Pittsburgh itself, and makes the smelters wealthy.

Just another such a place exists here in Montana, where hematite (hydrated oxyd of iron) is found in banks of such thickness that it needs but quarrying, whilst coal of good quality and limestone are deposited above and below, with stratas of good white fire-clay dividing the different mineral zones. This formation occurs in a large park, many miles in extent, overgrown by an

immense forest which decks also the mountains that hem this park on all sides. A hard, but easily-worked white sandstone crops out here and there along the low hills around the park, with stratas of coal immediately above. The writer, who spent but a few days in this vicinity seventeen years ago, had then neither the opportunity nor the inclination to investigate the minerals in situ, but the vast quantity and fine quality impressed it upon his mind that there, in the dim future, would be located the first Montana iron-plant. But a few miles from this spot, and divided by a low divide, he found himself upon the brink of an abrupt ravine, nearly 200 feet deep, the sides of which disclosed a horizontally stratified slate deposit, extending to the very bottom, which proved to be a remarkably fine roofing-slate, which nowhere can be excelled in quality, with the stratas deposited like the leaves of a book, and from one-sixteenth to four inches in thickness, of velvety dark-gray color, and so great a purity that, aside from the abrasion by water, the elements had no power over it despite the many ages it lay there exposed. How valuable this spot would be away down East! The easy accessibility of this remarkable slate quarry, and the great facility of working the mineral in shape (a never-failing water-power being at the bottom of it) should soon enable Montanians to use the best roofing material instead of the dangerous shingles.

Wherever coal is mentioned here, the well-known Rocky Mountain "lignite" is to be understood; but it bears a much closer resemblance to true stone-coal than to the lignite of the mineralogist; indeed, it is well known that in the vast coal field of the Rockies stratas are found which in usefulness rival the best of anthracite. At the park here mentioned, the writer found outcrops of coal bearing a close resemblance to cannel coal. How much the immediate proximity of igneous rocks has to do with this changed appearance of coal in this vicinity is difficult to say; but a long dyke of metamorphic rock has uplifted itself there through tertiary deposits of immense thickness and now forms the foothills of the main valley. A large creek found its way through a fault in this dyke, and carved out a narrow cañon through which you ascend four or five miles over a rough Indian trail to get into our mineral park. I visited it in the dry season late in September, but there was water enough in the creek on the very bottom of the iron ore quarry to furnish power to many an air compressor and have plenty left for rolling mills. Should it be found desirable to make charcoal iron, here the future iron master would find in the grand old forest of pine and fir an exhaustless source of cheap fuel. That this is not so very improbable, it should be recollected that at this present time the greater commercial value of charcoal iron has in the East re-kindled quite a number of cold blast furnaces after they had lain idle for many years, and in spite of the fact that in these instances the charcoal has to be shipped long distances over bad mountain roads, the forests in their neighborhood having long ago ceased to exist.

The hematite in our park is of high grade enough throughout to be smelted without sorting; but with sorting, ore in sufficient quantity could be produced which would be nearly the pure oxyd. A pocket specimen that I picked up for its remarkable true kidney-shape, long afterwards subjected to a crude fusion assay in a blacksmith's forge, with the necessary reducing fluxes, gave a fine malleable button of over 40 per cent. of iron.

The limestone is highly fossiliferous in places, and where exposed, stood the disintegrating influence of the ages remarkably well; it would make a fine building stone, and, polished, would be of great beauty. I picked up on one place a

large size piece of white marble of Carrara quality, and have been sorry since for not making the attempt to follow this prospect to its source.

The facts I have here stated need not be enlarged upon. Simply let it be recorded that in the near future iron can be made in Montana in large quantities, and presumably as cheaply as in eastern iron centres; and I foresee that Montanians will soon rejoice at their independence from far-away markets for that material which for ever will be the corner-stone of all industry.

EMIL HENKE, PH.D., M.D.

## NOTES OF NORTHWESTERN TRAVEL

Portland, Astoria and the Puget Sound Ports.

*Special Correspondence of The Northwest.*

TACOMA, July 1st, 1883.

## RECENT GROWTH OF PORTLAND.

The handsome metropolis of Oregon has grown very noticeably since my first visit a year ago. It has dotted the slopes of the forest-crowned hills on its eastern side with spacious and elegant suburban dwellings; it has reached up and down the Willamette with extensions of its business streets; it has thrown out a new suburb at Albina, where the railroad companies are building docks and machine shops; it has erected many large blocks of stores and offices; it has given a good start to a new daily paper, and now has one evening and three morning journals—as many as can earn a living I should say; and it has added at least five thousand souls to its population. Already the town is sufficiently large and city-like for the wealthy inhabitants to build country seats for summer residence on the hill-tops and in pleasant nooks in the neighboring forests. One of my friends is building his summer resort on a high summit where he can sit on his piazza, drink in coolness and inspiration from the view of five gigantic snow peaks, and sweep with his eye full fifty miles of the course of the Columbia River. It is these glorious views of eternal snow-fields, dense forests and mighty rivers that give to Portland and its vicinity such a peculiar charm to the tourist. They cannot be compared to any other landscapes in the world. Their charm is peculiarly their own, and arises from a combination of striking and beautiful features nowhere else found. If the Mississippi ran through the Alps, the effect would be similar to that produced by the huge, snowy summits of the Cascade Range towering above the mighty Columbia; but even then there would be lacking the superb forests of Oregon.

But I have determined not to write about landscapes in these letters. It is a theme to which the writer cannot do justice, and of which the reader soon tires. Let us turn from mountains and forests to look at

## A CITY BUILT IN THE SEA.

Astoria, the town near the mouth of the Columbia, founded by the trading expedition sent out by John Jacob Astor in 1810, is a unique and picturesque place. The salmon-fishery has given it a great impetus in recent years, and as the precipitous hillsides rising from the water's edge afforded footing for only one or two streets, the inhabitants took to the water, and built their houses on piles driven into the bottom of the bay. Lumber was cheap, and a building lot in the water was much more easily obtained than one dug out of the steep bluffs. The principal streets of the place are bridges of plank resting on piles, under which the tide washes in and out. There is not much movement of vehicles, most of the traffic being carried on in boats, but the omnibus that runs between the upper and lower town, and the trucks that haul boxes of canned salmon make a great rumble and racket as they pass over these



resonant highways. The water front of the town is lined with salmon canneries, and the bay is dotted with the sharp-prowed skiffs of the fishermen. In the aggregate, this salmon-catching and canning business is an immense industry. From the wharves of Astoria over 300,000 cases of the roseate fish are shipped every year. Each case contains four dozen cans, and each can weighs a pound; so there are 15,000,000 pounds of fish taken out of the mouth of the Columbia annually, and sold in the markets of the world. No wonder Astoria is rich and comfortable with such a mine of wealth in the water at its own doors. In the canneries the most interesting thing is to see the rapidity with which the Chinamen clean, behead, scale, and cut up the fish. Like the conjurer's tricks, it seems to be "all done by a slight turn of the wrist." One fellow beheads and disembowels the fish—some of them half as big as the man himself—and throws them into a tank of water. Another jerks them out and scales them; a third cuts them into segments in a machine; a fourth hacks the segments into smaller pieces which go to the canners, who squeeze them into the cans with their fingers. Then the tops of the cans are put on and the soldering is done by an ingenious machine. The cans are next put on big circular trays and are hoisted by a crane and lowered into great kettles for boiling by steam. The vent-holes are then soldered, the cans varnished, the labels applied, and the cans boxed for market—Chinese cheap labor carrying on all the processes. It is remarkable that the enormous destruction of salmon carried on year after year does not exterminate the fish. Probably it will in time, and the profitable industry at the mouth of the Columbia will destroy itself by its own activity, but up to this time there are no signs of a falling off in the numbers of fish that yearly enter the river's mouth.

#### TACOMA, THE TERMINAL CITY.

The 105 miles of country traversed in going from the Columbia River to Puget Sound is mostly unbroken forest, but a string of flourishing little settlements lie along the railroad, and there is an evident movement in the direction of attacking the wilderness to make clearings as well as to get saw-logs. Farmers who can find a strip of open valley along a stream for two or three fields, and a meadow, make a beginning on a small scale, and every year year manage with ax and fire to redeem a few acres from the woods.

I am told that there has been more clearing of land done in Western Washington during the past year than in any year since the first settlement of the region. Immigration is pouring in; the newcomers like the climate and the grand natural features of the country; they find that there is little or no open land to be had, and rather than abandon their plan of settling here they decide to wrestle with the forest in the old pioneer fashion.

No town on the entire Northern Pacific line makes a better showing of recent growth than

Tacoma. It has nearly doubled its population since my visit in the summer of 1882. Seen from across the bay, the hundreds of new roofs glistening in the sun give it the appearance of having sprung up in a single season. The place is ten years old, however, but it went forward in a slow and quiet way until the certainty of the near completion of the Northern transcontinental road gave it a powerful impetus. This impetus was first felt about a year ago. It has already produced numerous blocks of stores, graded streets, new manufacturing enterprises, two hotel projects, a daily paper, and scores of new dwellings. From a lonely village living chiefly on hope, a busy town has been born, developing a large country trade, increasing its coal shipments and preparing to handle the wheat crop of the East Washington plains. How much of the annual wheat surplus that now goes to sea from Portland will be diverted to Puget Sound when the Northern Pacific Road can haul it here without breaking bulk, is an open question for the future to answer. That a considerable amount will come to the Sound seems certain, since ships will take cargoes here at a cheaper rate than at Portland; and whatever does come, must, it would seem, be shipped from Tacoma, as the



THE CITY OF TACOMA, WITH MT. TACOMA IN THE DISTANCE.—[From a sketch by H. F. Farny.]

place where the railroad first meets the tide.

The site of Tacoma, on a plateau sloping gradually up to a bold promontory which looks out on Commencement Bay and far down the Sound, is very beautiful. From almost every street and house there is a view of the whole of the massive, gleaming bulk of Mount Tacoma, the king of all American mountains. A good glass discloses in the midst of the snow-fields on the side of the mountain three great glaciers. One of these, and not the largest, Senator Edmunds found to be more magnificent than any glacier in the Alps, when he visited it the other day. The town is surrounded with forests of stately firs, through which level roads, delightful for drives, lead to Steilacoom and Olympia, to the prairies a few miles distant, and to the fertile and well-settled valley of the Puyallup River, the flourishing hop-district of the Territory.

#### THE CITY OF SEATTLE.

Seattle, in the middle Sound region, is older by ten years than Tacoma, and has more the appearance of a well-established town. Its pretty amphitheatre of hills, steeply sloping down to Elliott's Bay, is compactly built over, and it is throwing out suburbs in two directions, one of them reaching out like a long arm to the shores of Lake

Union. The streets have a bustling, animated appearance, the hotels are crowded, and the place seems to be full of strangers looking for business chances, or for opportunities to get land. Probably the residence population is not less than 8,000. In a new country largely covered with primeval forests, such a population signifies a far-reaching trade, considerable manufacturing and well-grounded pretensions to the business and social influence of a prosperous city. Seattle will this year be given railway connection with the Northern Pacific system. Heretofore its transportation lines have all been on the water, save a narrow-gauge coal road that runs out twenty-odd miles to the Newcastle mines. It has fairly won its position as an important commercial town, without a railroad, and has a right to look for further growth when placed in direct connection with Portland and the East. Its progress during the past year has been hardly less remarkable than that of Tacoma, and its citizens exhibit a notable degree of enterprise in making the most of the advantages of the place. A recent project of theirs is to build a wagon road over the Cascade Mountains in advance of the construction of the Cascade Division of the Northern Pacific Railroad, in order to open trade

relations with the agricultural and mining country in the Yakima Valley. They have also made a handsome subscription to secure the construction by one of Henry Villard's companies, of a branch railroad to the Green River coal fields.

E. V. S.

THE salmon business is very lively in Alaska. The Northwest Trading Company and the Chilcat Packing Company, at Chilcat, are nearly ready for business, having each a very large cannery. They expect to put up 20,000 cases this

season, and also several thousand barrels of salt salmon. They will do well, as the salmon in these waters are in great abundance and of excellent quality. Besides these there are numbers of smaller canneries and places at which they are salting salmon. The Northwest Packing Company at Killisnoo are making great work among the codfish. They are drying and boxing it for market. This will soon be a great industry for the country, and the small price at which fish can be bought makes it an easy matter to compete with the East.

So soon as the completion of the Northern Pacific shall have been supplemented by the connection with California from Portland, trains will run through from St. Paul to San Francisco via Oregon in the same time now made by the Union and Central Pacific from Omaha to San Francisco. The distance from St. Paul to San Francisco via Portland will be 2,700 miles. It can be made in four days at an average speed of less than thirty miles an hour.

THE first apple-tree raised on the Pacific coast, from seed sent out on a Hudson Bay Company's ship to Vancouver, in 1826, is said to be still standing on the Government reserve, near Vancouver.

## WALLOWA LAKE.

Recollections of a Summer Trip to the Land of Joseph.

Correspondence Portland Oregonian.

Eastern Oregon possesses countless beauties of scenery which are unknown to the average denizen of Portland, but with which he will duly become familiarized, as the Oregon Railway and Navigation system of roads is pushed eastward. The tourist who goes up the Columbia from Portland to The Dalles, any day when it does not rain, gets value received for his time and money. He sees a more picturesque river than the Hudson, at least he sees the river of Geoffrey Crayon intensified, literally multiplied by two. There are thirty miles of palisades on the Hudson, and sixty-nine on the Columbia, and everything else is in like proportion. If it was beautiful in the summer glow, when Frank Pixley visited it three years since, and spoke for it in such syllables as no other California writer ever has done, it is far more lovely in the mellow October days when the magic wand of the frost touches the maples and azaleas, turning the embattled forests into an endless sheen of purple and scarlet and gold. Oregon's most enchanting picture is one that seldom meets the eye of the average tourist, for it is far from the busy haunts of men; and even when the transcontinental road shall wed the Father of Waters to his long-expectant bride, the Columbia, even then it will be a hundred miles from the line of the panting engine and clattering car. It is the fairest picture I ever beheld, not excepting the Mirror Lake of the Yosemite, audacious as the assertion may seem. It is called Wallowa, and lies in Union County, not over thirty miles from the Idaho line. The artist who first depicts its rare beauty upon canvas, if he be one of the heroic school to which Bierstadt, Keith and Munger belong, will earn a name and fame that shall not perish in a day. If you have seen and admired "Cape Horn" on the Washington Territory shore of the Columbia, you may form some idea of the beauty of Wallowa Lake, when I tell you that its western shore is nearly six miles of perpendicular moss-grown cliffs like Cape Horn. The water is clearer than any other known American lake, and the sky comes down to meet it in such a way that you believe heaven and earth are no longer twain.

Five years ago a band of audacious savages roamed this classic valley, shooting the wild deer and catching the speckled trout that darted through the crystal lake like meteors falling through the azure on a summer night. That was the romance of their history; the reality of it was that they stole the white man's horses in the valleys of the Grande Ronde, Umatilla and Powder Rivers, and then ran them off to these mountain fastnesses till the thing should blow over. General Howard ordered them to leave there and go on the Lapwai reservation. This they refused to do, and the rest is a part of history. You who have seen the dirty Diggers lazily hovering about the railroad stations in the Sacramento Valley towns, can form but little idea of the striking picture that Joseph, the Nez Perce chief, afforded me as he came riding suddenly upon me while casting the fly in the headwaters of Grande Ronde River, near the Cinque Pointes in 1876. He rode a gray horse fit for the charger of Jubal Early or Pat Cleburne, and such a dress I have never read about, save in Cooper's novels. Standing about six feet seven inches in his moccasins, and weighing not less than 225 pounds, though entirely devoid of superfluous flesh, it was no wonder that this savage had become a chief at twenty-seven years of age. He is not over thirty-three, if he is alive to day. I stood up to my knees in water, with a split bamboo in my hand, catching a half-pounder every ten minutes. They came so unexpectedly that I had no chance to fly for

safety. I knew these red devils would as soon kill a man as not, and I had not as much as a revolver with me. Pulling from my pocket a small meerscham pipe, I filled it with tobacco and handed it to the magnificent savage. A pent-up sigh of relief escaped me as I saw him hand it to his followers, each of whom took a whiff and handed it back to me. I took another puff and handed it to Joseph, and the next time I saw it the Nez Perce chief was a prisoner.

The Eastern Oregon climate is, to my idea, the finest in the world for asthmatic people, meaning, of course, that portion lying between the summit of the Blue Mountains and Snake River. There is a sniff of ozone even in the sultry hours of noon, and when evening draws down her veil of purple, you can sleep as in no other land. Especially is this true as applied to asthmatic people. A year ago, I was an officer on the Cascades boat and suffered terribly with asthma. When the boat lay here I would have two or three hours' sleep at night; and when she lay at the Cascades I might probably get in five hours. Judge, then, of the great renewal of my failing health when, on arrival of the hospitable farm-house of Budd McAllister, in Grande Ronde Valley, I found no difficulty in dropping off to sleep at 9 p.m. and slumbering soundly until 6 in the morning. The springs of that section are wonderful in their curative powers. The hot lake near Union not only cures rheumatism in all its early stages, but will remove the presence of quicksilver from the system of those unfortunate miners who have become salivated in retorting amalgam. Over on Indian Creek, on the John Day Valley, is a lime spring of about 62 degrees Fahrenheit, which is wonderfully effective in skin-diseases, like tetter, ring-worms and the like. Invalids who suffer from these complaints should not leave these springs out of their junketings.

## THE GRANDE RONDE VALLEY

Is the Chamouni of Oregon, about thirty-eight miles long and sixteen miles wide, with perennial springs in every direction. At one end is the little town of Union, with a mountain river pouring through its streets and bridged over with rustic bridges. At the other end is the quaint village of Somerville, surrounded with lovely orchards and pretty gardens. This is the finest dairy country in Oregon, for it has the purest water and most luxuriant grass. I know a man in Boise City who hauls butter made in the Grande Ronde Valley two hundred miles and pays four cents per pound freight on it. Put a hundred Vermont dairymen into this valley, with a thousand dollars apiece, and in ten years they would be capitalists. It is near Somerville that the tourist leaves the Grande Ronde Valley and takes over a low divide into Indian Valley. Thence you cross another ridge, rocky and barren as Nebo of old, and a ride of twelve miles brings you to a rapid and brawling stream, the outlet of Wallowa Lake. The river flows into the Grande Ronde, which is one of the affluents of the Snake. The Wallowa Valley may be desolate in winter, for it is nothing uncommon to have three feet of snow there; but on a July day I cannot imagine anything half as lovely.

On the westward side the vast Eagle Mountains towered above us, lonely and sterile; on the east were rolling hills clad with yellow pine and tamarack, while in the valley were little groves of cotton-woods where the lowing cattle were huddled. Large bands of horses, arching their necks, pranced gaily over the grassy meadows as we rode along by them. At sundown we camped at Prairie Creek and caught a few trout, not very large, but the sweetest ever a man ate. These, with some milk and raspberries that we had bought at a settler's house a few miles back, comprised our repast. Wolfish appetites atoned for the absence of damask and silverware, and then came the dhudeen and the evening yarns about the camp-fire.

About an hour later the four men were nestled beside the dying embers and slept as no man ever slept within doors. The day had been warm, but now a chill breeze swept down from the snowy peaks of the Eagle range. If you have seen the great triple crown of the Sierras, called Lassen's Butte, opposite Red Bluff, you can form some idea of the Eagle mountains. They are as broken and lofty as Lassen's Butte for nearly forty miles, and veiled in eternal snow. It was past noon the next day when the party halted at the brink of the pellucid lake and beheld such a picture as no human pencil can portray. The broad mirror was smooth as the sky above it, which pictured every cloud in the water below. A few fishermen's boats lagged on their lazy way as they drew their seines to catch "My Lord Cardinal," the red-fish found only in one lake of Oregon, two in Idaho, and one in Hungary. These fish never bite at a hook, nor can they be taken with a seine except in July and August. Numberless are the theories concerning these fish, one of which is that they are the Mukilteo or silver-side salmon, which is caught by trolling in October in Puget Sound. In July, in this lake, the red band on their sides is about half an inch wide and in August it is two inches wide. In September, the "cardinal" is gone. Now, admitting this to be the "silver-side," he has about forty days to go down the Wallowa river to its junction with the Snake, 100 miles; thence down the Snake to the Columbia, 212 miles; thence to the coast at Astoria, 355 miles; and thence to Seattle harbor, 300 miles more, making a total of 967 miles in forty days. Those who have seen "spent fish" go down the rivers as they do, with heads up stream, know that such a result is impossible. That this fish is of the salmon family, and that he comes up to spawn in these mountain lakes, I am willing to admit; but no one can make me believe he is identical with the game and beautiful fish that is taken with the spoonbit in Seattle harbor during the mellow October days.

## WORK BEGUN ON THE CASCADE BRANCH.

From the Seattle (W. T.) Post-Intelligencer.

Orders reached Portland on Saturday from New York for the work of construction on the Cascade branch of the Northern Pacific Railroad to be commenced at once. Accordingly, on Monday, Capt. J. F. Kingsbury, a civil engineer long in the service of the Northern Pacific Railroad, was appointed Chief-Engineer and Superintendent of Construction of the Cascade division, and on Tuesday he left Portland with a party of one hundred and fifty men, and tools for twice as many more, for Yakima City.

These men will be divided into three parties on the line, and form a nucleus around which a thousand men will be set to work before the end of June.

Captain Kingsbury's instructions are in writing, and are in effect as follows:

"Begin work at three different points near Yakima City, and push westward as rapidly as possible across the mountains till a connection is made with the standard gauge road from Seattle to Green River."

This information comes directly from headquarters, and can be verified if necessary.

The road from Palouse Junction, which Villard ordered some time ago, will be built to Yakima City, and be a continuation of the Cascade branch of the Northern Pacific from Seattle to the main line of the Transcontinental, running down the Columbia Valley.

This is what our people, and the people of both eastern and western Washington, have been looking forward to for years—the construction of a railroad across the mountains, and the authentic information of its actual commencement, published to the world for the first time this morning by the *Post-Intelligencer*, can only be heralded with joy by all friends of Washington Territory.



## A SPECTRE IN SPACE.

From the Helena (Mont.) Herald.

Some of our readers will recall Mr. Robert A. Marr, a member of the Government Geologic Survey, who made a short stay in Helena a year ago. The gentleman in a recent letter gives an interesting account of an atmospheric phenomenon, famous in the Hartz Mountains of Germany as the Brocken spectre, which he lately witnessed in the Toyabe range, southwest of Montana. Mr. Marr says: "Suddenly, as I stood looking over the vast expanse beneath, I saw myself confronted by a monster figure of a man standing in mid-air before me upon the top of a clearly defined mountain peak, which had but the thin air of the valley below for a resting place. The figure was only a short distance from me. Around it were two circles of rainbow light and color, the outer one faintly defined as compared with the inner one, which was bright and clear and distinctly iridescent. Around the head of the figure was a beautiful halo of light, and from the figure itself shot rays of colors normal to the body. The sight startled me more than I can now tell. I threw up my hands in astonishment, and perhaps some little fear, and at this moment the spectre seemed to move toward me. In a few minutes I got over my fright, and then, after the figure had faded away, I recognized the fact that I had enjoyed one of the most wonderful phenomena of nature. Since then I have seen it once or twice from Jeff Davis Peak, but it never created such an impression upon me as it did that evening when I was doing service as a heliotroper all alone on top of Arc Dome."

## POMPEY'S PILLAR.

In the journals of the Lewis and Clark expedition occurs the following description of Pompey's Pillar, a remarkable rock butte standing alone in the valley of the Upper Yellowstone. The date is May 25th, 1806, and Capt. Clark, after describing a storm which had suddenly burst upon his party, wrote:

"As soon as it had ceased we went on, and about four o'clock, after having made forty-nine miles, Capt. Clark landed to examine a very remarkable rock, situated in an extensive bottom on the right about twenty-five paces from the shore. It is nearly two hundred paces in circumference and about two hundred feet high, accessible from the southeast only, the other sides consisting of perpendicular cliffs of a light-colored gritty stone. The soil on the summit is five or six feet deep, of a good quality, and covered with a short grass. The Indians have carved the figures of animals and other objects on the sides of the rock. From this height the eye ranges over a wide extent of variegated country.

"On the southwest were the Rocky Mountains covered with snow; there was a low mountain about fifty miles distant in a direction north, 55° west and at the distance of thirty-five miles the southern extremity of what are called Little Wolf Mountains.

"The low grounds of the river extended nearly six miles to the southward, when they rose into plains reaching to the mountains and were watered by a large creek, while at some distance below a range of highlands, covered with pine, stretched on both sides of the river in a direction north and south.

"The north side of the river for some distance is here surrounded by jutting, romantic cliffs, succeeded by rugged hills, beyond which the plains are again open and extensive. The whole country was enlivened by herds of buffalo, elk and wolves." After enjoying the prospect from this rock, to which Capt. Clark gave the name of Pompey's Pillar, he descended and continued his route.

Col. Clough, engineer in charge of the construction of the Yellowstone division of the Northern Pacific Railroad, who climbed up the rock last summer when the road was progressing past it, wrote a description of it for the Minneapolis Tribune, in which he said:

"Standing on this rock to-day, after a lapse of three-quarters of a century, I acknowledge the accuracy of Clark's description, and try to picture to myself the wonderful scene as he then saw it.

will remain. On ascending the southeast side of the rock I find carved on the sandstone the name of

Wm Clark  
July 25<sup>th</sup> 1806

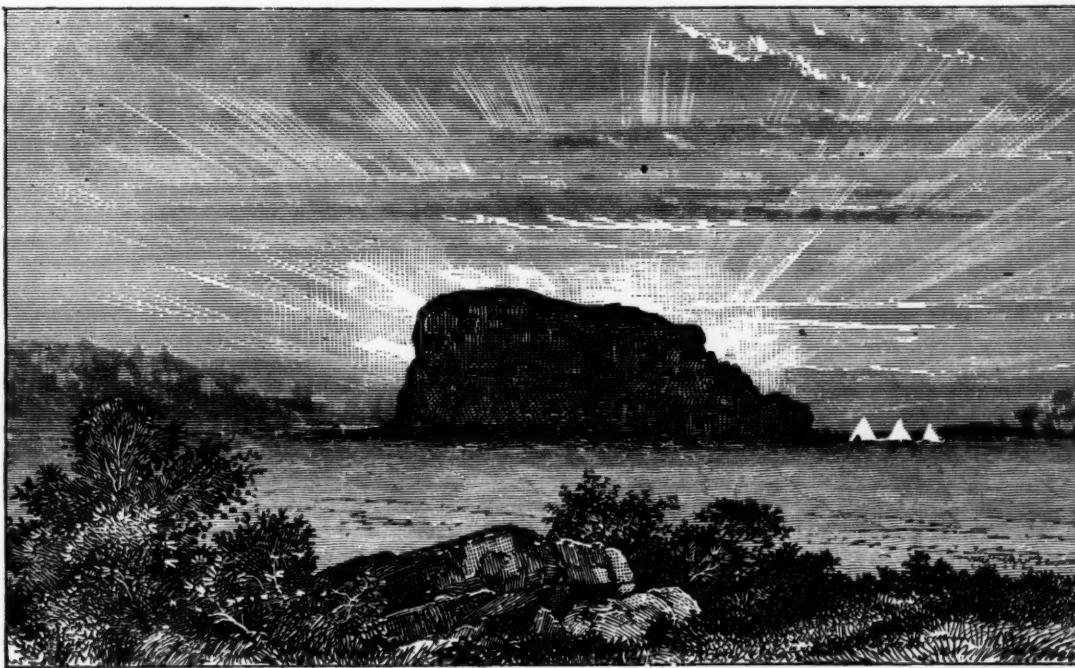
and very many names of later date all around his; some have been so ambitious that their names run into his. It would not be inappropriate to build on this rock a monument to Captain William Clark and other eminent explorers of early times, in honor of their distinguished services rendered their country in thus bringing to notice this wonderful valley."

Recently the inscription on the Pillar, by order of President Villard of the Northern Pacific Company, was protected from further vandalism by

a screen of wire firmly fastened over it upon the face of the rock.

## A DAKOTA MIRAGE.

A correspondent of the Fargo Argus relates that a few mornings ago, coming west from Fargo, the passengers on the Northern Pacific were treated to the phenomenon of a beautiful prairie mirage. On both sides of the track, at an apparent distance of four or five miles, a beautiful lake dotted by green islands covered with trees, and here and there a house or other building standing boldly out from the



POMPEY'S PILLAR.

On the broad plains, stretching off to the south, I seem to see herds of buffalo, deer, etc., quietly feeding upon the nutritious buffalo and bunchgrasses, and all unconscious of any save their own kind around them.

"No smoke from settlers' or hunters' cabins and no sound breaking the stillness of the scene. My thoughts go back to the handful of States that had clustered on the shores of the Atlantic, and their successful efforts to become free, and to the men, who, being the ruling spirits of those times, had sent forth a few daring men to explore the rich domain so recently acquired. In all the land there were no steam engines, no railroads, no telegraph, all seemed rude and uncivilized. Seventy-five years later, and how changed the scene. As I stand here I see the habitations of men. I see the teams at work throwing up the great transcontinental iron-bound road which is to link the busy East with the unsettled West. Soon will come the iron horse, the telegraph. Soon the broad acres will be turned up by the plough, and smiling fields and pleasant homes will everywhere greet the eye.

"To-day I see the self-same mounds on top of the rock. I see the carvings on the rock, but alas, the vandal cometh, and too soon not a vestige

waste of waters. These lakes, edged by high green banks, seemed to be miles in extent, presenting a picture grand in the extreme, deluding many in the belief that they were traveling over an island, many questions being asked as to the name and size of the lake, and people were astonished when told they were looking on an illusion. They intimated that no lake story would sound better if told to the "marines," pointing out the numerous water fowls as evidence of the reality which their eyes could so plainly see. This beautiful phenomenon lasted for a full hour's ride, or until after the train left Casselton. Twenty-five years' life and experience on prairies has shown nothing like this mirage of the Red River Valley.

The general freight agent of the Northern Pacific Road has made an estimate of the cattle shipments to the Western ranges over that line, and finds that about 25,000 head have been sent out since the first of May last. Most of the cattle have been taken into Montana. The result of the estimate is regarded as proof that the stock-raising interest is increasing immensely and is very much ahead of the natural production.

## STOCK RAISING IN THE NORTHWEST.

*From the Chicago Tribune.*

Montana is among the best territories for the raising of good cattle, and the last winter has been unusually favorable for their growth and prosperity. Old and experienced cattlemen say that the last winter has been more advantageous for the raising of stock than any other winter for years. The small percentage of loss in raising cattle in this Territory is quite remarkable, and proves it to be a better country for that purpose than even Wyoming and other territories to the south. I estimate the loss at from five to eight per cent at least. The principal loss is among the young cattle, especially the calves, which frequently die from exposure, neglect, and accidents. The cost of raising cattle from the time they are calves until they are three-year-olds, varies from \$1 to \$4 per head, according to the size of the herd, large herds invariably costing much less in proportion than smaller ones. The herders receive from \$35 to \$40 per month and board. In the winter cattlemen drive their stock near the deep valleys and cañons, where there is good grass and where they will be amply protected in case of sudden storms, though frequently they are kept out on the open plains without any shelter whatever. Most of the cattle in the Territory were originally brought from the East, and are consequently capable of enduring a greater degree of cold than those taken from Southern climates. The cattle from Texas do not seem to thrive well here. Another difference of great importance is also noticeable. While the meat from native Montana cattle is excellent, being sweet, juicy, and delicious, that of the Texas cattle is not relished with much favor. It is the general belief that small breeds of cattle, such as the Jerseys, Alderneys, etc., would not pay here, at least could not be made so profitable as the larger sizes, for the great aim with stock-growers is to raise cattle for beef. In fact, the raising of cows for dairy purposes has been entirely neglected, so that such a thing as good milch cows in the Territory can hardly be said to exist. So far as is known the Durham stock thrives the best of any of the breeds that have been introduced, yet it is only very recently that the experiment of improving the stock has received any attention.

It is now the general opinion of all cattlemen that fancy cattle can be grown here to the greatest advantage.

There is no business more profitable when taking into consideration the amount of money invested, and none in which large profits accumulate more rapidly and with greater certainty. I know of one man who began in 1865 or 1866 with 200 or 300 head purchased down in Kansas, and now he enlists 10,000 for taxation. The ordinary increase of a herd annually varies from a fraction under one-fourth to one-third the whole number, and even more. An ox, cow, or steer grows from a mere calf into an animal of over \$30 in value within three years, and at an expense not to exceed \$4 while doing so, and probably even less than \$2, leaving from \$26 to \$29 of clear profit to the owner; and then to this add the natural increase of a whole herd yearly, and it will be seen what enormous profits are made.

But the prospects now are that the chances for cattlemen to reap rich harvests in the future in the Northwest will be somewhat limited, owing to the rapidity with which the country is being settled up and stock ranges becoming transgressed upon and being reduced in size. Still there are some ranges to be found beyond the boundaries of civilization, providing there are those who will adventure to the risky limits of the frontiers. In many places the herding of cattle is attended with much difficulty on account of the scarcity of grass and water. Buffalo-grass is very nutritious, but it grows scattering and is soon killed out by too close pasturage, and other wild grasses are

principally to be relied upon. The supply of good water in the western country is scarce, and generally springs and wells must be dug in order to obtain any that is at all drinkable, for the principle portion of the water on the great plains is impregnated with alkali, which cattle will not drink, and it is well they do not. To protect the cattle, herders build corrals which resemble in structure a stockade. Into these corrals the cattle are driven of nights and thus the depredations of Indians and cattle-thieves generally thwarted.

## A TALK WITH VICE-PRESIDENT OAKES.

His Views as to the Prospects of New Tacoma.

*From the Tacoma Ledger, June 20.*

"What do you think of Tacoma and its prospects, Mr. Oakes?"

"I have no hesitation in saying that Tacoma has all the elements of great and permanent prosperity. It will always be the shipping point for the Carbon hill and Wilkeson coal fields; it will be the great shipping point for the grain of eastern Washington, and besides this, it is bound to become the objective point to which all tourists will come who wish to see the grand sights, a portion of which only we had time to visit, the glaciers of Mount Tacoma. The output from the Carbon hill mines will be 1,000 tons a day, and that from the Wilkeson veins at least an equal amount. This means the shipping at the Tacoma bunkers of 2,000 tons, or the load of 400 cars daily. This of itself guarantees an amount of prosperity which will be admitted to be a good basis for permanent stability and pre-eminence over places with less facilities of this kind. There is, besides, a significant fact which the public ought to take into account and draw their own inferences, viz.: that the company has recently expended a sum of at least \$165,000 on providing bunker facilities for the shipping of coal at New Tacoma, whereas they have not spent much more than a fifth of that sum for a similar purpose at any other point. That fact of itself, taken in connection with the extensive interests of the company centered around our city, ought to be enough to satisfy all, without there being any necessity for explicit statements on the part of any official."

"What, may I ask, Mr. Oakes, is to be done in the matter of the provisions for wheat shipping facilities?"

"Well, the fact of the matter is that the company has felt that the farmers must be educated to the adoption of elevators for shipping grain; and, besides, there is really no absolute necessity for elevators or other provision than now exists until the line between Portland and Kalama is completed. When that is done the elevators will be got ready for the shipment of next year's crop."

"Do you suppose there will be an extensive rush of tourists to this point on the completion of the road?"

"I have not the slightest doubt of it. The scene is unique on this continent, unless, perhaps, it be paralleled in the inaccessible parts of Alaska, and the company will lose no time in making good roads to each of the glaciers. Places of shelter, of a commodious description, will be provided along the whole route from Wilkeson, and the services of guards will be available. We will send a man almost immediately to describe the whole route, and a photographer to take views of the scenery, the result of whose work will be given to the public in a form similar to our Yellowstone book, which you have no doubt seen. I am satisfied that crowds of tourists who now spend their summers in Europe, will come here, and of course Tacoma is the natural and only suitable point for parties to get their outfit, who propose undertaking a visit to the glaciers, or the feat of ascending the mountain."

"May I ask you one question, not in your official capacity, but as a private individual, with reference to the comparative prospects of New Tacoma and Seattle?"

"Well, I am very unwilling to say anything that might have a detrimental effect on the future prosperity of any town on Puget Sound, and, therefore, am averse to speak as plainly as I otherwise might on that subject. Seattle will always be a good and prosperous city. Of that there is no question whatever in my mind; but with the advantages which I have mentioned in Tacoma's favor, I, of course, hold her future prospects as practically unbounded, and certainly not equalled by those of any other city on the coast. More than this I must decline to say."

## RESOURCES OF THE CHEHALIS VALLEY.

*From the Chehalis Valley (W. T.) Vidette.*

Persons coming to this country, or in fact to any part of Western Washington, need not come with the expectation of finding prairie land, for it is not here. But those who wish homes and are willing to clear land to make them, can find what they are looking for in this country. It is a natural grass country, and land that will not turn off more than two and one-half tons of hay to the acre, farmers don't think worth fencing; but there is little, if any, so poor. The average yield of the different crops raised here is about as follows: Hay, three and a half to four tons; wheat, thirty-five to forty-five bushels; oats, sixty to eighty and ninety; potatoes, from 300 to 400, and sometimes as high as 600 bushels per acre. Vegetables grow here as well as in any part of the world. The timber is of the best quality, and practically inexhaustible. On the Naselle River there are thousands of acres as fine fir and spruce timber, as ever stood in the woods. The ridges on both branches of the Willapa, are covered with the same dense forest of fine timber, although in this part of the country, fir predominates. All that part of the country lying between the upper part of the Willapa and Lewis county, is almost a solid tract of timber, which will some day be made into lumber.

## GROWTH OF THE AGRICULTURAL INTEREST.

The growth of agriculture in the United States from 1870 to 1880 was wonderful. A writer of a statistical turn of mind has lately been studying the census compendium with reference to learning whether the present tendency in this country is toward larger or smaller holding of land. The figures for the number of farms in 1870 and 1880 are as follows:

	1880.	1870.
Total number of farms.....	4,008,907	2,659,985
Under 100 acres.....	2,208,374	2,075,338
One hundred to 500 acres.....	1,695,983	565,054
Five hundred to 1000 acres.....	75,972	15,873
One thousand acres and over.....	28,578	3,720

From these it appears that the total number of farms has nearly doubled. Very little of this increase is found in the farms under 180 acres, while the number of those of less than 50 acres is actually smaller. Farms between 100 and 500 acres, which includes the "homestead" department, having increased threefold. Those between 500 and 1,000 acres have increased fivefold, and those of more than 1,000 acres have increased nearly ninefold. These large farms are not all in the new northwest, for 3,884 of them are located in the cotton states and in Virginia.

WHATCOM is the largest county west of the Cascade Mountains, possessing half a million acres of good, tillable soil, comprising tide lands, river bottom and upland, adapted to cereal and root crops. Many new settlers have gone in this season.



## BOZEMAN, MONTANA.

BOZEMAN, the county seat of Gallatin county, is situated near the eastern end of the Gallatin Valley, at its narrowest point. North of the city the mountains are about three miles distant, but the range suddenly diverges in the same direction and afterwards the valley becomes twenty miles in width. Bozeman is the oldest established town on the line of the Northern Pacific Railroad in Montana, the town-site having been laid out in July, 1864. In August of that year a well-known frontiersman, John Bozeman, reached the place in charge of a party of emigrants, who were so impressed with the beauty and fertile soil of the valley that they determined to go no further. The town was named in honor of this pioneer, who was murdered three years afterwards by Indians in the Yellowstone Valley. For the first year or two the growth of Bozeman was slow. In 1865 a mill was put in operation and two years afterwards Fort Ellis, situated two and a half miles east of the town, was established and garrisoned by three companies of United States troops. The gradual increase of population in the Gallatin Valley was soon evident, settlers coming

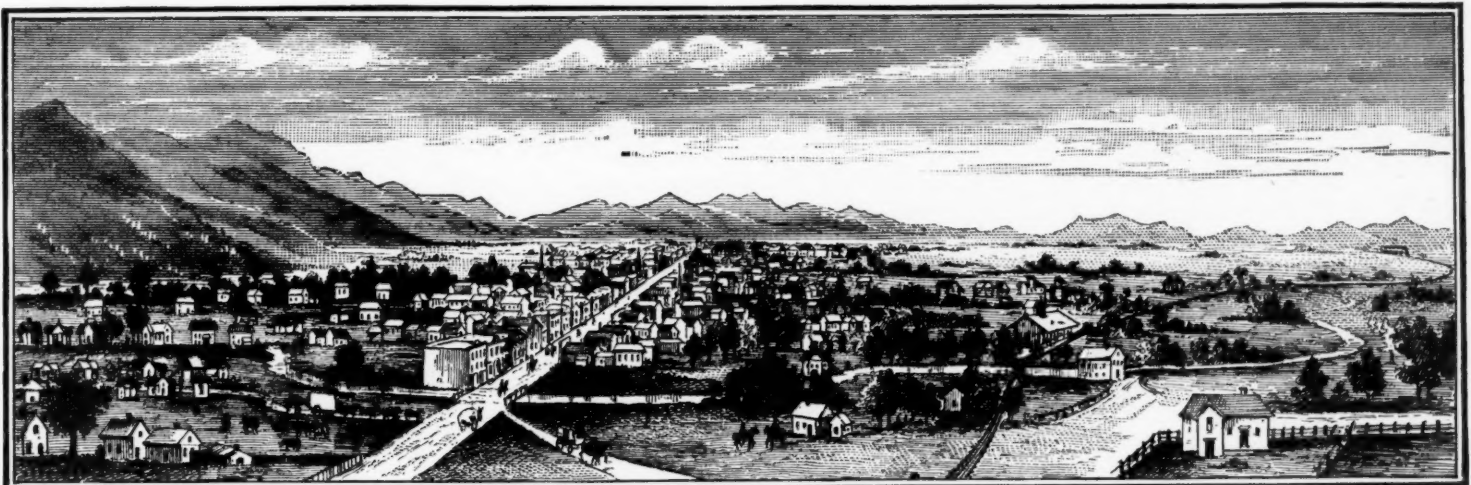
Sixteen-Mile Creek, Piney and other districts along the mountains skirting the Gallatin Valley, within sight of Bozeman. Work is being pushed on many old mines and the immediate future promises a heavy production. Several large veins of excellent bituminous coal are profitably worked a few miles east of the town, and outcroppings of silver, iron and copper are to be found on almost every hand. Bozeman is a prominent outfitting point for the mines and cattle ranges and for overland trips to distant points of interest. Daily lines of stages run to Fort Benton, Virginia City, Dillon, Butte City and other important towns, and a tri-weekly stage line to the Clarke's Fork mines. The scenery surrounding Bozeman is very picturesque. Thermal Springs, said to contain medicinal properties, are within an hour's drive. Mystic Lake, 12 miles from the town, covers about 80 acres and is a beautiful sheet of water. On the mountains around Mystic Lake and in the vicinity of Bozeman are forests of stately pines. Among the rivers in Gallatin county are the West Gallatin, Middle Fork and East Gallatin, the Madison, Yellowstone, Shield's River, Big and Little Timber, Sweet Grass, White Beaver, and Kiser Creeks, Emigrant Milk, Skull, Big and Lit-

of all the improved lands in the Territory, the actual figures being 118,535 acres in Gallatin county, 397,566 acres in twelve other counties—an average of 33,130½ acres each.

More than nine-tenths of all the cultivated land in Montana is in the mountain region, and strangers who estimate the agricultural resources of the Territory by observation and examination of the farming done east of longitude 33, do all the counties west of Yellowstone a great injustice.

These figures are really startling, and yet do not tell half. Climb to the top of any of the surrounding mountains and "view the landscape o'er." You will see tracts of land in many places in the valley miles in extent, seemingly almost level, and not a stick of fencing thereon, and not a furrow turned. Every farm house and every parcel of cultivated ground is distinguishable. No one can gaze upon the scene without being struck with the fact that the valley has not yet been called upon to contribute even a tithe of its resources.

The cereal product of Gallatin county for the season of 1882, was 703,361 bushels—554,052 of oats, 141,749 bushels of wheat, and 7,560 bushels



VIEW OF BOZEMAN, MONTANA.

in from the surrounding country and making Bozeman their trading center. The city now has a population of 3,000 and presents a very attractive appearance with its many substantial brick structures, among which are business blocks, churches, graded schools and a fine court house, while on every side appear stately residences and neat, cosy cottages. Large mercantile establishments form a prominent feature, many of which transact business to the amount of \$100,000 a year. The city has also two flouring mills, three banking houses, two hotels, two planing mills and sash and door factories. Excellent brick is manufactured and used in the construction of the buildings. Lumber is abundant and cheap. There are two ably conducted newspapers of large circulation.

Bozeman owes much of her solidity to her agricultural resources. The Gallatin Valley is about thirty-one by twenty miles in dimensions, with a soil composed of a rich, dark, vegetable mould. This is the headquarters of some of the leading stock raisers and shippers of the Territory, and Gallatin county is largely developing its industry in this direction as well as in dairy farming. The assessment lists of the county for the year 1882 shows 10,158 horses, 37,700 cattle, 1,445 hogs, 18,415 sheep, aggregating in value \$1,255,800. The development of the mineral resources of the county has also begun and the results are encouraging. Locations have been made in the Clarke's Fork, Emigrant Gulch, Bear Crevice, Mill Creek and Eight-Mile Creek districts in the Upper Yellowstone country, and in the West Gallatin at Bridger,

the Boulder creeks, Stillwater and many others of less importance. All these are stocked with trout and some other kinds of fish. Game, such as grizzlies, black bears, wapiti deer and other animals are abundant in the surrounding country.

## THE GALLATIN VALLEY.

From a compact and well-written little pamphlet on Bozeman and the Gallatin Valley, lately published by Matt W. Alderson, of Bozeman, Montana, we take the following extracts in relation to the agricultural resources of that pleasant region:

Hon. H. N. Maguire estimates the grazing and arable extent of the Gallatin basin (including the lower Madison and Jefferson) at 600 square miles, sufficient for 2,400 quarter-section locations, or three times as many as have been made, and he also says: "It may be assumed that not to exceed ten per cent. of the land appropriated has been put into a producing condition."

The county assessor for 1882, reported 118,535 acres of "improved lands" in the county. As less than two per cent. of the crop of Gallatin county in 1882, was raised outside of the Gallatin basin, the importance it figures in the permanent wealth of the county cannot be overestimated.

Gallatin county has twice the acreage of improved lands of any other county in Montana, with one exception, that of Meagher county, which has 88,891 acres. It has nearly one-fourth

of barley. The market value of these products on the farm was \$574,282, divided as follows:—Oats, \$387,836; wheat, \$178,886; barley, \$7,560. The oats were nearly all sold in the county, at a profit of fifteen to twenty-five cents per hundred, and the wheat manufactured into flour by our own mills, with a handsome profit to the mill-owners and others.

The following table shows what has been done, under favorable conditions, by Gallatin Valley farmers. The accuracy of figures given can be verified on application to any of the gentlemen whose names are given:

Name of Farmer.	Year.	No. Acres	Kind of Grain raised.	Av. bu. p'r acre
Henry Monforten	1878	24	Spring Wheat	50
"	1879	25	"	57
Welch & Plum	"	70	Wheat	42
Richard Plum	"	32	"	43
E. A. Selleck	"	8	"	50
Steve Howes	"	15	Oats	71
Rev. M. Bird	"	10	Spring Wheat	45
White Calfee	"	45	Oats	60
John A. Smith	"	13	Oats on sod	50
Perkins Russell	"	60	Wheat	58
D. A. Kughen	"	47	"	53
"	"	28	Wheat on sod	46
Howell & Ethridge	"	92	Wheat	37
"	"	68	Oats	53
W. W. Woolverton	1880	12	Oats on sod	67
"	1880	77	Oats, Barley, etc.	44
Marion Leverich	1879	23	Wheat	50
John J. Reese	1881	100	Oats	100
C. H. Waterman	"	1/2	White Belgian oats	160
John M. Robinson	"	100	Wheat	40
C. H. Waterman	"	73	"	55
Benj. F. Bisel	"	91 1/2	Barley	60
"	"	20 1/2	Oats	80
John M. Robinson	1882	51	Wheat	51
"	"	61	Oats	80
Merritt W. Penwell	"	180	Wheat and Oats	56
T. B. Ellis & Bro.	"	30	Oats	64
C. H. Waterman	"	5	Oats on sod	94

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NEGOTIATE RAILROAD LOANS.

ISSUE LETTERS OF CREDIT FOR FOREIGN TRAVEL,

RECEIVE THE ACCOUNTS OF DOMESTIC AND FOREIGN BANKERS, MERCHANTS AND CORPORATIONS.

NEW YORK, AUGUST, 1883.

THE pressed brick and terra-cotta works recently established at Sims, 70 miles west of Bismarck, will be able to furnish the material for the new capital of Dakota. The quality of work this concern is turning out is hardly surpassed in the East.

THE voluntary relinquishment by Chief Moses of his reservation in Eastern Washington Territory, opens considerable good country to settlement. Most of the reservation is mountainous, but it contains several fine valleys well adapted for grazing and general farming.

THE track on the Sanborn, Cooperstown and Turtle Mountain Railway, has reached Cooperstown. That enterprising North Dakota town, started a year in advance of railroad communication, has had a season of rejoicing over the event, and has taken a fresh start as the county seat and chief trading point of Griggs county, a county containing hardly any land not fit for immediate and profitable cultivation. Cooperstown has a bright future before it.

A LETTER from a correspondent in Missoula on an extensive and rich bed of iron ore existing near that town, deserves the attention of capitalists. The ore is unquestionably good; there is plenty of it; timber for making charcoal is abundant; veins of coking coal have been found—in short there

are all the conditions at hand for the establishment of a successful iron industry. Iron making is profitable in Colorado; why should it not be equally profitable in Montana?

IN a memoranda pamphlet issued from the office of the Northern Pacific Railway Company, September 5th, 1882, Vice-President Oakes estimated the gross earnings of the company for the fiscal year ending June 30th, 1883, at \$8,000,000. The actual figures for the year, as published in the last number of THE NORTHWEST, were \$7,912,425.29—coming up very close to the predicted amount. Mr. Oakes' estimate, made at the same date, of the earnings of the fiscal year 1883-4 was \$15,000,000.

THE town of Billings, Montana, has gained an important point in favor of its further growth, in being made the starting point for a branch to be built immediately to the coal field on the Bull Mountains. There was an alternate line run by the engineers, coming down into the Valley of the Yellowstone near Pompey's Pillar, but the Billings line had the double advantage of connecting with the Northern Pacific's main line at a large town, and of serving as the first link in the projected branch to Benton, at the Great Falls of the Missouri. The Bull Mountain coal field is of considerable extent, and the coal is much superior in quality to any of the lignites now mined in Dakota and Eastern Montana. The railroad is now saving \$100,000 a year by using the fuel found along its line, and this saving will be trebled when the Bull Mountain mines are opened so as to furnish an ample supply for locomotive use.

### OPENING OF THE NORTHERN PACIFIC

IT is expected that the tracks of the Northern Pacific Railroad, advancing from the two slopes of the continent, will meet near the western portal of the Mullan Tunnel, on the Main Divide of the Rocky Mountains, about the 10th of September. The event will be worthily commemorated. An oration will be delivered by Hon. Wm. M. Evarts, ex-Secretary of State. Excursion parties will go from New York, and from Portland, Oregon, to witness the ceremonies. Many distinguished guests will attend. The President of the United States has signified his intention to be present, if his engagements will permit. Several members of the Cabinet and other officials holding high station under the Government have accepted invitations, as well as the Governors of the Northwestern States and Territories and the Mayors of the great cities. The party will also include a number of the foreign ministers resident in Washington, many eminent guests from Europe and representatives of the leading American, English and German newspapers.

The last spike will be driven by Henry Villard, under whose able management, as

President of the Northern Pacific Company, the last of the transcontinental roads projected by Congress in 1853, has been completed. Although the last to be built, the Northern Pacific is the best of all the roads to the Pacific Coast; it opens more valuable country to settlement than either of the others; its tributary territory is more extensive, more productive, and of more varied resources.

The completion of the Northern Pacific is an event of national interest. It links the Great Lakes with that most capacious and beautiful of the world's harbors, Puget Sound. It joins together by the steel arteries of commerce the whole northern tier of States and Territories from Lake Superior to the Pacific. It is building up new communities, developing new industries, and opening new homes to hundreds of thousands of people. It shortens by six hundred miles the route from New York to Japan and China. It furnishes a new channel for the trade of nations.

A generation has passed away since the idea of a railroad along the route followed by Lewis and Clarke first occupied the public mind. How many courageous and devoted men have labored for the realization of this grand enterprise! Honor to the memory of those who have passed from the stage of action—to Asa Whitney and Josiah Perham, who urged the project upon the attention of Congress; to Edwin F. Johnson and W. Milnor Roberts, the great engineers; to Governor Isaac I. Stevens, the pioneer explorer and surveyor, and to many more! Honor, too, to the living—to the whole line of former Presidents of the Company—Smith, Cass, Wright, Billings, and Barney; to President Henry Villard, whose genius for organization and finance has provided the means to complete the road, and given it an extensive system of feeders and branches; to Jay Cooke, who, in 1870, raised thirty millions to begin building the road; to the officers of the Company, and particularly to Thomas F. Oakes, the Vice-President, and Adna Anderson, the Chief Engineer, who have directed the construction of over 2,000 miles of track on the main line and branches in two years time; to General Sherman, who gave to the enterprise the invaluable support of the army, and to his subordinate officers who swept the savage Indians from the pathway of the road! Honor to them all! May they stand on the grassy slope of the Main Divide, on a bright September day, listen to the eloquent words of the great orator and witness the consummation of their hopes in the driving of the last spike on the Northern Pacific Railroad!

### WEST OF THE MISSOURI.

EMIGRANTS who want to find good agricultural lands for homesteads, or who desire to buy cheap railroad lands, need not be discouraged if they do not get what they seek in the older settled parts of Dakota. Let



them push on to the new region west of the Missouri. The land in that section is productive and fair to look upon. Many energetic little villages are springing up which promise in a few years to become large towns. The soil is excellent for wheat, oats, and potatoes; the natural pasturage is good; there are plenty of running streams, and coal seams are so numerous that most farmers can dig and haul their own fuel from the side of a bluff.

New Salem, Glenullen, Taylor, Gladstone, Richardton, Dickinson and Belfield, are the names of flourishing young settlements on the railroad. At any of them settlers will be cordially welcomed.

#### AN INVITATION TO JAY COOKE.

THE following invitation shows the appreciation felt by the present management of the Northern Pacific Railroad for the great services rendered the enterprise in its early days by Mr. Jay Cooke, of Philadelphia, its first financial agent:

NORTHERN PACIFIC RAILROAD COMPANY.

PRESIDENT'S OFFICE, }  
New York, July 10th, 1883. }

JAY COOKE, Esq., Philadelphia, Pa.:

*My Dear Sir:*—Enclosed please find two cards of invitation to participate in the ceremonies connected with the opening of our main line from Saint Paul and Minneapolis and Lake Superior, to Portland, Oregon and Puget Sound.

I welcome with special gratification this opportunity of manifesting my high regard and admiration for the man to whose initiative the creation of the Northern Pacific Railroad is mainly due, and without whose energy and enterprise in its early days I should not now hold the position it is my good fortune to fill.

I hope that I shall have the satisfaction of seeing you on my right when the last spike is driven into the main track.

I expect to be able to tender you the privilege of a private car, and will advise you shortly of the exact date of departure.

Very truly yours,

H. VILLARD, President.

To the above letter, Mr. Cook has made the following reply:

BEACH HAVEN, N. J., July 17, 1883.

HENRY VILLARD, Esq., President N. P. R. Co.

*My Dear Sir:* Your most kind letter inviting me to join in the excursion proposed, upon the completion of the Northern Pacific Road, has been sent me here.

For your personal reference to myself and the recognition of my past services in this great enterprise, I cordially thank you. My faith in the Northern Pacific Co. has never faltered, and I have rejoiced in your success and have admired your pluck and energy.

If possible, I will accept your invitation; and as soon as I hear further from you as to the time of starting will, if possible, put aside other plans and engagements and go on the trip, and will notify you. Sincerely yours,

JAY COOKE.

THE charges of the Yellowstone National Park Improvement Company for hotel accommodations, and for horses, carriages and guides are quite moderate. Four to five dollars a day for good hotel entertainment in the heart of the Rocky Mountains cannot be complained of, and the other figures on the tariff schedule are fully as reasonable.

#### ST. PAUL AND NORTHERN PACIFIC RAILROAD.

THE Western Railroad of Minnesota, a corporation which, under the control of the Northern Pacific managers, built a road from Brainerd to Sauk Rapids, in 1877, a distance of 60 miles, has been absorbed by, or rather, expanded into a new company called the St. Paul & Northern Pacific. The new corporation is extending the road to Minneapolis, 92 miles, and building a double track from St. Paul to its extensive properties midway between St. Paul and Minneapolis. It will also provide terminal facilities in both those cities for the Northern Pacific system, which will include union freight and passenger stations, machine and car shops, cattle yards, slaughter houses, round houses and freight yards. The terminal property comprises twenty acres in Minneapolis, and three hundred and eighty acres in St. Paul, one hundred and sixty of which are located within the business centre of the latter city.

The Saint Paul & Northern Pacific Railway Company, with all its terminal property, is leased for nine hundred and ninety-nine years to the Northern Pacific Railroad Company, and constitutes an independent entrance for that system of railroads into the cities of Minneapolis and St. Paul.

The Directors of the new company are Henry Villard, Frederick Billings, Egisto P. Fabbri, Thomas F. Oakes, and Edward D. Adams, of New York; Charles B. Wright, of Philadelphia; Alexander Ramsey, Geo. L. Becker, and F. R. Delano, of St. Paul.

The officers are: President, Henry Villard, New York; Vice-President, Edward D. Adams, New York; Secretary and Treasurer, George S. Jones, New York; Comptroller, A. G. Postlethwaite, St. Paul, Minn.; General Counsel, George Gray, New York; Land Commissioner, E. T. Williams, St. Paul, Minn.

A financial scheme for the St. Paul & Northern Pacific Company, prepared by Edward D. Adams, of Winslow, Lanier & Co., has resulted so successfully that a loan of \$5,000,000 in forty-year six per cent. bonds, was all taken within a few days after it was placed on the market.

THE new town of La Moure, at the point where the Fargo and Southwestern branch of the Northern Pacific Railroad crosses the James River, is only two months old, and already has a newspaper, a bank, and over one hundred buildings.

LIVINGSTON, the young town at the head of the Yellowstone Valley, is making such rapid progress that, although the oldest buildings only date from last winter, it has already begun to erect substantial brick structures. Usually the period of cheap and hasty wooden architecture lasts at least two or three years in a new western town. Livingston has outgrown it in six months. The place was not, at the start, an experiment, however. When the Northern Pacific

Company decided to build extensive machine shops there, and make it the point of divergence for the National Park Branch, the speedy growth of a large town was assured.

#### PERSONAL ITEMS.

EX-SENATOR Conkling is now in the Yellowstone Park with his wife and a few personal friends.

COL. J. B. CULVER, of Duluth, is dead. He shoveled the first dirt on the Northern Pacific Railroad.

HON. FREDERICK BILLINGS has become a member of the Board of Directors of the Oregon and Transcontinental Company.

THE Rev. Henry Ward Beecher and his wife are now visiting their son, Captain Beecher, who commands one of the Puget Sound steamers of the Oregon Railway and Navigation Company.

HENRY VILLARD has given \$1,000 to the Pacific Congregational Church of St. Paul, which finds a special field of labor among the employees of the numerous railway lines centering at that place.

A STATION on the Blue Mountain Line of the Oregon Railway and Navigation Company has been named Spofford, as a compliment to Mr. Charles A. Spofford, private secretary to President Villard.

F. JAY HAYNES, of Fargo, has gone to Rawlins, Wyoming, to join President Arthur's party and accompany it through the Park. He has been appointed official photographer of the company by General Sheridan.

CHARLEMAGNE TOWER, of Philadelphia, has presented to Tower City, Dakota, which bears his name, a valuable library of 1,500 volumes, and Geo. H. Ellsbury, has donated the use of the second story of the Herald block for a public library room.

VICE-PRESIDENT Thomas F. Oakes, of the Northern Pacific, returned, July 11th, from a three months' tour of inspection of the lines of that company. He accompanied Senator Edmunds in a visit to British Columbia and a trip to the Puyallup River glacier on Mount Tacoma.

THE Yellowstone National Park will have a large number of distinguished visitors this year, President Arthur and General Sherman heading the list. Both the President and the veteran Commander of the Army are good sportsmen, and fond of camp life, and will be sure to get a liberal measure of enjoyment from their trip to Wonderland.

THE beautiful Memorial Episcopal Church of stone built at Tacoma by Mr. Charles B. Wright, of Philadelphia, as a tribute to his deceased wife and daughter, is now completed. The structure is the finest church edifice in Washington Territory. Mr. Wright is now on his way to Tacoma with his sons and daughter, and will be able to see the flourishing town whose interests he has so long had at heart, for the first time since it was established.

UDO BRACHVOGEL, editor of the New York *Belletristisches Journal*, the leading German-American literary weekly, is the author of an excellent series of articles entitled "Ten Thousand Miles through the Great West of the United States," now appearing in the *Leipzig Gartenlaube*, the most widely circulated of the German illustrated weeklies. The pictures are by Rudolph Cronau. His sketches of the Bad Lands and the Mammoth Hot Springs in the Yellowstone Park give a better conception of those wonderful scenic phenomena than any engravings which have appeared in American periodicals.

## NOTES OF NORTHWESTERN TRAVEL.

From Montana to the Columbia River.

*Special Correspondence of The Northwest.*

PORTLAND, OREGON, June 20th.

## A PROSPEROUS YOUNG TOWN.

My last letter was dated at Missoula, the pretty town at the entrance to the Bitter Root Valley, which is fast being changed by the influence of the railroad from a remote trading post to a busy centre of trade, and an important distributing point for immigration. I found the three hotels of the place—two of them opened last spring—so full of people that many guests thought themselves fortunate to obtain cots in the parlors and halls—a luxury indeed, compared to the usual accommodations in this region when I traversed it a year ago. Then a night's lodging meant only the privilege of spreading your blanket on the floor. Now you get a spring bed and four courses for dinner. If you want any true flavor of wilderness life you must get away from the railroad. In the course of my whole journey from Lake Superior to the Pacific, I have found occasion to use my blankets only three nights, and that was during a trip to Devil's Lake in Northern Dakota. Last year, in going over the same ground with a party of three friends, we had a month of rough living, between the ends of the Northern Pacific track, sleeping on the ground, or on what was much less comfortable, the knotty, corrugated floors of ranchmen's shanties, which left their marks in the morning all over one's aching body.

Missoula has one great advantage over all the Montana towns in its fruit trees and gardens. Its altitude is about a thousand feet less than that of Deer Lodge, Butte, Helena or Bozeman, and cherry-trees, apple-trees, and berry bushes flourish. Some of the dwellings are quite hidden behind the green screens of the fruit trees, and stand in the midst of pretty gardens that delight the eye, tired of ranging over wide and windy slopes and long vistas of mountain summits, and eager to rest upon something that is not on a grand scale, but only little and homelike. The future of Missoula as a centre of trade and industry is assured by a fortunate combination of circumstances. It has the largest agricultural district tributary to it of any town in Montana with the possible exception of Bozeman; there is coal to mine and iron to manufacture in the immediate vicinity; a lumbering enterprise on a large scale is already on foot; numerous ledges of gold and silver ore exist and will well pay for working, now that machinery can be brought in by rail; and finally, the climate is agreeable and healthy, the scenery magnificent and the site of the place admirably adapted for the development of a large town.

## FROM MISSOULA TO LAKE CŒUR D'ALÉNE.

The distance from Missoula to Spokane Falls is 258 miles, and in all this stretch of country there is no possibility of any considerable town growing up. As soon as the Missoula Valley is left behind, the Flathead Indian Reservation is entered. Once out of this fair and ample domain, from which white men are excluded, the railroad enters the narrow gorge of the Clark's Fork River, and follows it all the way to Lake Pend d'Oreille. At Paradise and Horse Plains the mountains yield a little level ground by the river side, and there is room for a few farms. At Heron, there is a level bench of three or four thousand acres where the railroad company has established a division terminus in the midst of a dense forest. Here a village of train-men, track-men and mechanics, and the trades-people and saloon-keepers who find occupation in supplying their wants, has grown up during the past few months. The shores of Lake Pend d'Oreille are all forest or steep mountain-side. Before leaving Northern Idaho you get out

of the woods and cross many beautiful prairies, each one a vast and wonderful flower-garden in the month of June. Unfortunately, these prairies have a gravelly soil as a rule, and not much of their areas is valuable for agriculture. In their midst stands the pretty county-seat village of Rathdrum; eleven miles distant is Lake Cœur d'Alène, and the military post of the same name. The site was selected by Gen. Sherman personally, and the post bears the reputation in the army of being the handsomest in the country. Its broad parade ground, fronting on the lake, is flanked by groves of evergreen trees, in the midst of which stand the houses of the officers, the quarters of the men, the hospital and store-houses, and a neat little chapel. The dwelling of the commanding officer, Gen. Wheaton, is finished within with the native woods of Idaho, showing their natural colors, and the furniture is made of the same material by the skillful hands of enlisted men. Particularly handsome effects in color and grain are obtained from the mountain cedar. Less grand and wild than Lake Pend d'Oreille, Lake Cœur d'Alène is more attractive by reason of its park-like shores. It is shaped somewhat like a letter T, and after sailing up it for thirty miles on the little steamer owned by the Government, one can push on up either the St. Josephs or the St. Marys River as much further into the heart of the mountains and through magnificent forests. It was not easy for me to refuse the kind invitation of Gen. Wheaton to make this novel voyage, and to say, as one must do to so many hospitable appeals to diverge from a fixed plan of travel, "some other time." For the benefit of tourists let me add three things in this connection: There is a good hotel at the lake, near the post, and boats for rowing and fishing; the drive from the railroad to the lake leads across a prairie which, in early summer, when I crossed it, was the most beautiful natural flower-garden I ever saw; and finally, at Rathdrum, where the cars are left, there is a cosy little hostelry, where one gets fresh eggs, creamy milk, golden butter, and the only good cup of coffee it was my luck to drink between St. Paul and Portland.

## SPOKANE FALLS.

The title of the "Minneapolis of the Pacific Northwest," which the citizens of Spokane Falls give to their town, does not imply any great stretch of the imagination. Here is a water-power even more ample and convenient for use than that furnished Minneapolis by the Falls of St. Anthony; and here exist in a state of rudimentary development the precise conditions which have made Minneapolis a great city—an extensive wheat country to furnish grain to be ground, and a large timber belt lying contiguous to the lakes and water-courses which feed the Spokane River. The logs are floated down the Spokane to its falls, just as they are floated from the pineries of Northern Minnesota down the Mississippi and its tributaries to the mills of Minneapolis. The wheat region of Eastern Washington is destitute of timber, and Spokane Falls is its natural supply-point for lumber for building and fencing. The merit of the water-power does not consist only in the fact that there are two falls and a long rapid; the river is divided by a large island which doubles the extent of shore front available for mills. It is no exaggeration to say that fifty mills could find good sites and ample power. As the rich regions of Eastern Washington become populous and largely productive, this town must become a great milling and manufacturing centre. Apart from its swift, green river and foaming cataracts, it has an admirable situation on a high, gravelly plateau,—a forest on its southern flank, and to the northward green prairies stretching away to a blue horizon-wall of rugged mountains. The town has added one-half to its population during the past year. A large flouring mill and five substantial brick business

buildings are now in process of construction, and a daily newspaper is the latest sign of growth and prosperity.

## THE NEW GRAIN REGION OF EASTERN WASHINGTON.

Last year I drove 250 miles through the new wheat country, lying between the Cascade Range and the Rocky Mountains, chiefly in Eastern Washington, but lapping over into Idaho on the east and into Oregon at its southwestern extremity. On this journey I am obliged, for lack of time, to keep to the railroad, from which one sees but little of this attractive farming region. The best land lies south of the Northern Pacific line in a belt about sixty miles wide, circling around the base of the Cœur d'Alène, Bitter Root and Blue Mountains. There is, however, another good arable region in the Big Bend of the Columbia, north of the railroad, where settlement is an affair of the present year only. South of the road there is still a good deal of unclaimed Government land and unsold railroad land, but some portions of the country are comparatively well settled, and there are many towns and villages. A region where 40 bushels of wheat to the acre is only an ordinary crop, and where the bunch-grass grows knee-high and affords plentiful feed for cattle and horses the year round, could not escape the attention of the enterprising American emigrant, even when it was cut off from railroad facilities by hundreds of miles of mountains and deserts. With the opening of the Northern Pacific road next fall the settlement of this region will proceed with such rapidity that another year will not pass before all the best land will be occupied. The country is healthy, the climate as agreeable as that of Pennsylvania or New York. All things considered, I believe it to be the most inviting new agricultural district now open to first occupancy in the entire West. It is not of as great an extent as Dakota however, and is a thousand miles further from Eastern markets. This latter disadvantage is overcome, in part, by its nearness to the tide water of the Pacific at Portland and Puget Sound. Its surplus wheat product will never go East by rail, but will always seek the sea by a short haul westward, and be taken to Liverpool by sailing ships. Washington farmers get about twenty cents less per bushel for their wheat than Dakota farmers, but they are compensated by a larger yield per acre. A given amount of labor and capital expended in wheat raising in Washington, Idaho or Oregon will produce as large a sum as net profit as in Dakota.

## CHENEY, SPRAGUE AND RITZVILLE.

These new towns west of Spokane Falls I saw only from the platform of a railroad car. Cheney is built in a pine grove, and is an active trading point for a large extent of farming country. A big hotel, called the Oakes House, in honor of Thomas F. Oakes, Vice-President of the Northern Pacific Railroad, is the most conspicuous improvement of the past year. Sprague, was at first purely a railroad town, the creation of the repair shops and offices of the Pend d'Oreille Division of the Northern Pacific, but this year it is beginning to acquire some importance as a mercantile point, as the settlement of the farming country North of it progresses. Ritzville is the last town on the railroad going westward where farms are seen, until the Columbia River is reached. It is an inconsiderable village, with confident hopes of growth, based on very recent demonstration of the value of the neighboring soil for grain culture.

## THE GREAT PLAIN OF THE COLUMBIA.

From Ritzville to Ainsworth, where the Snake River joins the main stream of the Columbia, the distance is 84 miles, and in the whole journey one sees no signs of habitation, save the section houses and stations of the railroad. This region, forming a part of the Great Plain of the Colum-



bia, is not a desert, however, as might be imagined from its vacant appearance on the map. Its rolling surface is everywhere covered with an abundant growth of bunch grass, and would make a valuable stock range, if water were more plentiful. In time, artesian wells will, no doubt, supply this deficiency. So much good pasture land will not long be left unoccupied because of the scarcity of running streams. Where the Snake River enters the Columbia, the country is level, sandy, and covered with sage brush. It looks like a Nevada desert, but the townspeople in Ainsworth say that the soil is excellent with irrigation, and are talking of schemes to take water from the two rivers and raise fruits and grain. This little strip of desert-like land, not more than twenty-five miles across, is the only place on the entire line of the Northern Pacific Railroad where the land is not of some value, either for farming, grazing, lumbering or mining, in the condition in which Nature offers it for the occupancy of man.

E. V. S.

## NORTHERN PACIFIC POLICY.

Interview with John Muir, General Traffic Superintendent.

From the Portland Oregonian, June 28th.

As the date approaches for the completion of the Northern Pacific Railroad, and the introduction of through freight and passenger arrangements, considerable interest is manifested in the probable policy to be adopted by the company in connection with its through traffic. With a view of answering some of these inquiries an *Oregonian* reporter sought Mr. John Muir, superintendent of traffic of the lines involved, whom he found in his office, and asked:

"When do you expect your Northern Pacific line will be completed and in operation?"

Mr. Muir—"We expect to run through passenger trains between this coast and St. Paul by September 1, and will probably be fully equipped for freight traffic within three or four weeks after that date. Work has progressed much more rapidly than we anticipated, and the inaugural ceremonies will doubtless take place during the last week in August."

"What will be the actual distance from Portland to St. Paul?"

"One thousand nine hundred and sixteen miles."

"Will you run through cars?"

"Certainly. Passengers will be enabled to take through Pullman palace sleepers at Portland and go through to the great lakes without change. The dining-cars, which are becoming so popular in the East, will also be added to the trains at proper places, together with reclining chair cars between all important points."

"What do you expect to do in the way of a tourist business?"

"I do not hesitate to say that I believe the Northern Pacific, in connection with the Oregon Railway & Navigation Company, will shortly be the greatest tourist line in the country. Aside from the many pleasure resorts which are already advertised and open to the public, such as the Yellowstone and Pyramid Parks, the Mammoth Hot Springs, the Pend d'Oreille region, Columbia River, Puget Sound, Alaska, and the newly explored glaciers of Mount Tacoma, there are hundreds of beautiful spots all along the line. Mineral springs have been discovered in some localities, and when the country is settled, many of these new places will rival the summer resorts of the East."

"What are to be the rates of fare from St. Paul to points on the Pacific coast?"

"To Pacific coast points, first-class fare will be \$100; emigrant, \$45. To Spokane Falls, Walla Walla, etc., first-class, \$97.50; emigrant, \$42.50."

"How do these rates compare with the rates made by the Union and Central Pacific lines?"

"That is best illustrated by taking their emigrant rates from Omaha to Winnemucca, 1,452 miles, which is \$45; while our rate from St. Paul to Walla Walla, a distance of 270 miles farther, is but \$42.50. This last rate we will also establish to Wallula, Dayton and Pendleton, the lowest rate via the other overland lines being \$45. In other words, they make their charge to all intermediate points the same as to their terminal, San Francisco, while, as I have said, our rate to interior points will be less than the through rate."

"What baggage allowance will be made?"

"One hundred pounds on each full ticket, fifty on one-half ticket."

"What accommodations are to be afforded immigrants?"

"We are now building in the East a number of substantial immigrant sleeping-cars, which will provide for them most of the comforts of first-class travel."

"What basis of through freight rates do you propose to adopt?"

"We will adopt practically the same classification and tariff on overland business as that now in force upon the other transcontinental routes."

"What is to be the policy of the company in regard to rates from the East to points east of the Cascade Mountains? Are you going to make up your rates to inland points by adding to the Portland rates the locals from Portland back, so that a merchant at Walla Walla, for instance, will be compelled to pay for transportation which he never enjoyed?"

"No, sir; the rates to all points west of Lake Pend d'Oreille will not be higher than those to Portland."

"What other Pacific coast points will be placed on the same footing with Portland?"

"Astoria, New Tacoma and Seattle will be common points with Portland."

"Why not Victoria?"

"Victoria is not upon our rail line. All the other points I named will be rail points when the system is completed. However, there will be but a small additional charge added from Seattle to Victoria for lighterage."

"Will any points east of the Cascades be made distributing points for the business of the interior?"

"Under the plan which I have just outlined—that is, putting Spokane Falls, Cheney, Sprague, Walla Walla, Dayton, Pendleton, The Dalles, etc., upon the same footing with Portland—each of those places will become a distributing point for the locality which is naturally tributary to it. The idea is to make the rates common and let the business divide itself geographically."

"In what manner do you propose to treat shippers who now have contracts via the other overland lines?"

"We have not yet determined what course to pursue in regard to the contract system. All contracts now in force with Pacific coast consignees by the other lines expire December 31st, and until the end of the year we will take up such contracts upon Pacific coast business and duplicate such contract rates to Portland. Understanding this, shippers will no doubt reduce their present stocks to a minimum, with a view of saving the transportation from San Francisco north."

"What new avenues of trade, if any, will be opened up to Portland and the Northwest coast on the completion of the line?"

"The traffic of the Northern Pacific will be divided at a point midway between Bozeman on the east and Missoula on the west. That is, the rates from the Pacific coast to Missoula and points east of Missoula as far as Bozeman will be precisely the same as rates from St. Paul to the same points. This, you see, will make a neutral territory for a distance of 245 miles equally accessible to trade from the east and from the west. This territory, moreover, includes all the important points in

Montana. Merchants from this coast will have the same opportunity to supply this neutral section as those in St. Paul and the east."

"What new westbound traffic, if any, will be opened up from this interior section?"

"That question touches upon a subject which promises to become of great interest. In addition to the mineral and cattle interests, which are constantly growing, there is an immense quantity of copper ore and matte at Butte, Helena and vicinity, which is now shipped through, via New York, to reduction works in Swansea, Wales. Upon the completion of the Northern Pacific, this product will find a new outlet by way of the Pacific coast. One large smelting company alone in Butte guarantee during 1885 the shipment of not less than 40,000 tons of this matte. I believe the time is not far ahead when this traffic in copper matte and ore will not fall far behind the present wheat surplus of Oregon and Washington. If ship charters can be obtained for something like fifty shillings, which ought to be done in connection with return cargoes of coke, a through rate could be made via this coast which would bring the entire copper and matte business this way."

"I might allude also, in this connection, to the fact that as soon as the price of English coke can be figured down to something like \$8.50 per ton of 2,000 pounds delivered here, an extensive traffic can doubtless be worked up in this article from Portland to the smelting works. Connellsville coke, coming from Pennsylvania, is now of course the standard, but it is an acknowledged fact that the English coke is superior by about 15 per cent., and as soon as its superiority could be shown to the smelters, they would doubtless take it up even at a slight advance on the price of Connellsville."

"Do you expect to carry any of the grain surplus east over the new line?"

"That is a matter which will be developed after the completion of the road. With the experience of the first six months of through traffic, and before the grain crop of next season is harvested, we will be able to see the general direction of the volume of our freight traffic. If the copper ore and matte business which I have spoken of is diverted to the Pacific coast it would of course give us a large surplus of empty cars to return eastbound, which we might profitably load with grain at a comparatively low rate. One thing is certain, after our line is in operation through charters will never be as high as they were season before last. You recollect they were at one time as high as 80 or 90 shillings, and, of course, should they reach such figures we will either step in and take the business overland or compel a reduction to figures approximating say 50 shillings."

"It has been stated you propose to run a line of refrigerator cars to take our fresh fish and fruits to the east?"

"Yes, that matter has already been provided for. We have now in service on the eastern end ten refrigerator cars and are building fifteen more, which will be ready for service by August. Some of these will be specially fitted for fruit and salmon carriage. We have also added to our refrigerator line and have now in use fifty cars for transporting beer. During the month of May our ten refrigerator cars carried over half a million pounds of beer, beef, fish, oysters and vegetables."

"When the gap is closed will your company seek to do a share of the through California business, and, if so, at what rates?"

"If we attempt to do any business at San Francisco at all, it will be done at uniform rates with other transcontinental lines reaching that point. With our fine fleet of Pacific coast ships we are in splendid condition to enter the field for this business; but for the first month or two after the road is through we will have about all we can do to take care of our own business in Oregon and Washington Territory."

## QUESTIONS AND ANSWERS.

[In this Department the Editor will endeavor to answer briefly all inquiries concerning the Northwestern country, openings for settlement and new enterprises, promising investments for capital, railroad securities, etc.]

### Healthfulness of Washington Territory.

ATLANTA, Ga., July 12th, 1883.

To the Editor of *The Northwest*:

In your May number you publish a correspondence taken from *Leslie's Illustrated*, in which the writer speaking of Washington, says, "The climate in the main, healthful." Will you please inform me to what part of the Territory he refers as being the healthy section—or rather, will you inform me if the Puget Sound country is as healthy as other parts of that Territory, and oblige,

B. M. R.

The Puget Sound country is as healthy as sea breezes and mountain air combined can make it. Most of the land is high and well drained, and there is consequently little malaria. The inhabitants appear to be unanimous in their praise of the climate.

### Women can Homestead Land.

BATAVIA, Ill., July 17th, 1883.

To the Editor of *The Northwest*:

Can women take up land under the homestead law? I have a mother and two sisters. I have been told that we can get a whole section of Government land by living on it. Is this true?

J. R. F.

Yes; unmarried women have the same homestead rights as men. Go to Dakota and select a section of good land, build a house exactly in the centre where the four quarters corner, and you can all live together and hold the whole section, as four separate homestead claims.

### Through to Oregon.

BOSTON, July 24th, 1883.

To the Editor of *The Northwest*:

How soon can I go through to Portland, Oregon, over the Northern route?

L. M. S.

You can go through now if you don't mind a short stage ride over the Rocky Mountains. By September 15th, you will be able to go all the way in a Pullman car.

### About Alkali.

SUN DALE, Ohio, July 15th, 1883.

To the Editor of *The Northwest*:

Is there as much alkali in Western Washington Territory as there is in Kansas and Colorado? Please answer in "Questions and Answers," and oblige,

M. A. M.

There is no alkali in Western Washington. Alkali is found in Eastern Washington, but rarely to such an extent as to interfere with the production of crops.

### WESTERN WHEAT FIELDS.

From the *New York Tribune*.

New railroads at the West mean new wheat lands. To move grain by wagon is said to cost about twenty cents per ton per mile, or over half a cent per bushel. But the cost by rail is only one or two cents per ton per mile. The direct saving to the farmer may be loosely estimated at about half a cent per bushel of wheat for every mile of distance. The farmer who was twenty miles from a railroad station, and who could not afford to raise much wheat because it cost him ten cents a bushel to put it on the cars, suddenly finds that a new railroad has brought him within a mile or two of a station. He therefore has a great deal more land than he can afford to put into wheat, which he had previously employed in raising and feeding cattle and hogs, or other products on which the cost of transportation is relatively smaller. Thus without an addition of a single acre to the area of the country, or a single

inhabitant to its producing population, its capacity for wheat-growing is immediately increased by every mile of railroad completed.

Within three years there have been nearly 20,000 miles of railroad built in this country. Part of it was in old States, and part in mining or manufacturing districts, but at least 10,000 miles must have been in regions where most of the soil is adapted to wheat-growing. Within four miles on each side of these new roads lie 80,000 square miles of land, or 51,200,000 acres, which presumably became more advantageously located for wheat-growing by reason of the building of these roads. If only one acre in five, on farms thus situated, should be actually applied to wheat-growing, an addition of 125,000,000 bushels to the yearly yield might be expected. The acreage thus employed would be much larger in the regions where the soil, climate and freedom from forests or other obstacles favor the cultivation of this grain from the outset. Anywhere from 100,000,000 to 300,000,000 bushels of wheat might be added to the yearly yield on account of increased railroad facilities alone, within three years, and there would be no occasion for surprise.

### THEY CANNOT STOP IMMIGRATION.

From the *Fargo Republican*.

So many people are leaving the East and coming out to Dakota where they can obtain lands, make homes, and become independent, that the newspapers throughout the Eastern States are resorting to every kind of misrepresentation in order to, in some measure, deter such wholesale migration to the Northwest. Many of them are taking the murder of the Ward boys at Devil's Lake as a text, and trying to show from that tragedy, that Dakota is a wild, lawless, and nearly uncivilized country. Nothing could be further from the truth. There is more lawlessness and crime in the very communities in which those newspapers are published, than in Dakota. There is, perhaps, no part of the country East or West, North or South, freer from crimes and the criminal class, than North Dakota. The rough elements do not come to this region. The man that comes here must work, if he would win the prize that is within the reach of every honest, industrious immigrant. Roughs and criminals do not seek the land where nothing but labor can win. They never work unless when they are compelled to, in reformatory institutions or penitentiaries. But everything out of which something can be made to tell against Dakota, is seized upon and made the most of by the press in the East. The efforts of these papers, however, will not avail much, as there are thousands of intelligent men and women here from all over the East, who are in constant communication with their friends and relatives there, and they will refute the false statements made by the papers there. The Territory is rapidly filling up, and with the very best and most enterprising class of people, and the efforts of those interested Eastern newspapers will be as futile as the attempt of Mrs. Partington to sweep back the waves of the Atlantic with her broom. These immigrants have been pouring into North Dakota all this spring, and hundreds are daily arriving. They are spreading out all over the prairies, putting up houses and barns, breaking the land, putting in crops. They have come to stay, and have a hand in building up the great bread supplying empire of the world.

LA MOURE county is one of the best portions of the James River Valley, and is rapidly filling up with settlers. The average of wheat has been largely increased over that of 1882 and a great deal of breaking is being done which insures a much larger acreage next year. The county is being filled up with a good class of actual settlers.

## ADVANTAGES OF MONTANA.

### A Valuable Letter from an English Traveler.

From the *London Field*.

Montana has undoubtedly a very promising future. It is a field for new capital, new muscle, and new enterprise, and provided these three things are intelligently managed, either will lead to very satisfactory results.

As a poor man's country it stands, in my opinion, at the head of the list. Let me speak more definitely and give facts. Foremost, at the present moment, among a poor man's enterprise—I am not speaking of an entirely penniless tenderfoot, but of a man who reaches Montana with a small capital, say £200 in his pockets—is the erection of a dairy near any of the larger agricultural settlements or mining towns. Butter, as I understand, is never under 1s. 8d. a pound, and more frequently 2s. 6d. per lb.; while eggs command as much as from 3s. to 5s. a dozen. But to detail the investment of his £200. Good American milch cows are more expensive than ranche cattle, and he will have to pay £10 or £12 a head for them—say he buys:

	£	s.	d.
Ten milch cows, at £12.....	120	0	0
One American bull.....	15	0	0
His log cabin and corral cost him beside his work.....	30	0	0
Twenty fowl.....	7	10	0
Appliances for his business and food for fowl.....	17	10	0
Food for one month and extras.....	10	0	0
	200	0	0

His returns amount at the termination of six months to:

	£	s.	d.
1400 lbs. of butter at 2s. a lb.....	140	0	0
Eggs at 3s. a dozen.....	30	0	0
	170	0	0
Five months' supplies and extras.....	60	0	0

Net gain, cash..... 110 0 0  
beside increase in calves, worth £3 cash, or £20 first year.

Of course, one man alone could not possibly attend to all the above duties and take the produce to the nearest market, but a man and wife could, and though the life for the first six months at least would be of the roughest, and replete with toil and privations, the very satisfactory result would act as a healing salve, and spur him to further exertion. In these new Western countries life is very rough, not only for one who has to begin at the bottom of the ladder, but for all dwellers on the frontier. This disregard for the smaller every-day comforts, which to us seem so indispensable, has its good sides, however. Being common to all classes, to the millionaire miner, who for years has not had a white shirt to his back, as well as to the poorest laborer, life's hardships are not made more unbearable by the contrast of luxurious display. One of the most attractive features of life in those wild countries, is the involuntary "camaraderie," which, by popular voice puts the hundred pounder on precisely the same level as the hundred thousander. Rank radicalism! the reader will perhaps exclaim; but then let him visit the West and see for himself whether the social problem of Europe has not settled itself in those regions in a quiet and unostentatious manner on its own merit, i. e., the muscle, energy and intelligence of the individual man. But I am wandering from milk to sociology—rather a wide jump—so let me return to the former, and give another instance of the inaptitude of the Westerner to provide for himself a more comfortable existence. Montana is the home of hundred thousands of cattle, and yet you can travel for months from ranche to ranche, and be surrounded by kine, without ever seeing a drop of milk or a scrap of butter. It is the same thing in Wyoming, Texas and New Mexico, in all of which great cattle countries the men are perfectly satisfied with their black coffee and their bacon fat in lieu of butter. The latter would be cheaper, for the bacon comes from Chicago, 1500 or 2000 miles off, and the production of butter, especially in Montana, where there are countless mountain streams, one and all of sufficient water-power to turn the crank of a churn,



would be easy and costless. If you ask them for the reason of this, they will tell you that they do not live to eat, that they have more important things to attend to than make butter, and finally they will probably hint that if the country is not good enough for you, you are too bad for it. In a month's time you have "tumbled" to their ways, while the keen air, and constant out-of-door exercise gives you such a rayenous hunger, that the most rancid bacon fat seems far more palatable than the best sauce *à la Tartare* to which you formerly had recourse to fillip an unnatural appetite.

At the same time it must not be supposed that there is no market for milk and butter. The Western man is a liberal fellow with his money, however economically saving he is with his labor, centering it on his life's work. Let him have facilities for purchasing these little comforts without any further trouble to himself, and he is a liberal patron.

If it pays to make butter in the thickly settled Central States, where dairying is conducted on a huge scale, but where land is worth £8 or £10 an acre, and where the produce only sells at from 8d. to 1s. a pound, how much more remunerative must it be to produce it where land and grazing costs nothing, and where you can get the prices I have previously mentioned. So much for one of our poor man's schemes.

In 1882, 15,000 settlers were added to the population of Montana, which now exceeds 40,000 souls. Last year, public land in the United States was disposed of to the extent of 14 million acres, and about 310,000 acres of Indian land—about 3½ million acres more than the preceding year.

Of these lands, about half went as free homesteads of 160 acres each, supplying 39,548 settlers. In Montana, the largest amount of land under the Desert Act, *i. e.*, giving 640 acres, was taken up, namely, 61,682 acres. Large quantities of the Northern Pacific Railway land were also bought. The Montana farming lands are sold by the company for 12s. 10d. cash, or 15s. on time, one-sixth down, the rest in five annual payments.

One word in this place on a social topic. Hitherto Montana has been so remote, that comparatively few women have gone there, and those that have braved the long and riskful journey of overland days, have almost invariably been married within a few months of their arrival. The early settlers were exclusively men who were prospecting for gold, and, as a rule, never expected to stay long in the Territory. Now this is all changed, for the railway has penetrated into Montana; but, nevertheless, girls that will make thrifty housewives are in great demand. A lady, the wife of an official, going four years ago to Helena, the capital of the Territory, took out with her a maid, who, in the week's travel by stage from the last railway point to Helena, had no fewer than five proposals from passengers and from the stage drivers. To-day she would have one or two on the same journey. Only last November I was witness of such a stage-coach courting, the man, a bright-eyed, strapping young stage driver, pushing hard a buxom lassie fresh from the East (Iowa), about to visit her married sister. I thought it great fun at the time, as I watched the course of apparently true love; but my ideas underwent a sinister change when, after depositing the damsel at her sister's ranche, the temporarily rejected and now more than usually reckless swain, put his four horses at a dead run down a narrow, very steep, and very winding mountain road, with eternity at our side and ahead. I never experienced such an unselfish desire for woman to share another fellow's company, than on that mad drive.

Montana has also a big future as a wheat growing country. While the 19,000,000 acres arable land which Montana men claim for the Territory is probably an exaggerated figure, at least of land

naturally so without irrigation, it yet may sum up to 13 or 14 million, on which wheat, averaging about 20 or 25 bushels to the acre, and netting a clear profit of £3 per acre, can be raised at a cost of 2s. 6d. per bushel. Oats will pay even better. Riding through the country I have often had to pay 16s. and 18s. for 100 lb. of oats for my horses, and then had to be grateful that I was accommodated with it.

Potatoes are an exceedingly profitable crop in a country where they are retailed at 2½d. a pound. From reliable sources, I hear that £15 to £20 net profit per acre is by no means uncommon, though early frosts now and again play havoc.

The very rapid increase in the magnitude of railway, mining and other operations in all parts of the Territory justifies the belief that no considerable surplus of produce can be raised in Montana for years to come, and until that time prices must remain from 50 to 100 per cent. higher than in the "States." The following were the January (1882) wholesale prices paid by merchants and hotel keepers at Butte City (M. T.) to ranchmen and farmers: flour, 20s. per 100lb.; fresh fish, 1s. per lb.; wheat, 25s. per 100lb.; cheese, 9d. per lb.; oats, 12s. to 16s. per 100lb.; barley, £3 per 100lb.; butter, 1s. 8d. per lb.; dried beans, 3½d. per lb.; eggs, 3s. per dozen; mutton, 5d. per lb.; beef, on foot, 3d. per lb.; pork (dressed), 6½d. per lb.; beef, choice cuts, 10d. to 1s. per lb.; veal, 5d. per lb.; beefs, 1½d. per lb.; venison, 5d. per lb.; hay, per ton, £3 to £4; chickens, 2s. 6d. each; potatoes, 2d. per lb.; onions, 4d. per lb.

There is one climatic advantage peculiar to Montana which is worth recounting. It is the presence of the "chinook" or warm wind in winter. It is felt only in those localities, and there are many in central and western Montana, which are situated close to the Rocky Mountains, where they are low, or where natural passes enable the warm currents to penetrate into the interior. This warm wind, coming after a spell of snowy and cold weather, acts most beneficially, and, indeed, gives Montana some of the climatic advantages of the Pacific Coast. I happened to experience a telling, though I am told by no means unusually prominent, instance of what this wind can do. From my diary I make the following excerpt: "Nov. 13, 1882. Left S.'s ranche early, rode toward Mussellsell Divide (central Montana) snow four or five inches deep, and cold quite severe, thermometer when I started marking 16 deg. below zero, Fahr. (48 deg. of frost.) Chinook set in to blow by 10 a.m., and at 3 p.m. all snow had disappeared, and thermometer was up to 50 deg. Fahr." This wind is attributed to the Great Japan Ocean current, which, sweeping northward, strikes the low coastline of Oregon and Washington Territory, and sends its warm breath far inland.

To come to the chief industry of Montana, cattle raising, I may very justly be reproached that I have said sufficient upon that enterprise in previous letters. Having, however, quite recently returned to England, I am not a little struck by the great number of cattle companies that have and are being started. I am myself in one, so must naturally refrain from saying as much as I should like on that subject.

To one who has some little acquaintance with the far-away scenes and inside history of many of these concerns, the high dividends which it seems are not only promised, but in several instances paid, during such early stages as the first six or twelve months of their existence, smack rather too much of city financiering to be altogether pleasing. It would be a pity and shame if the ranche business in the West were to be so conducted as to make the English public and capitalists turn their backs on it, as they have done upon all American mining investments. Cattle ranching has a promising future, and it is a legitimate *bona fide* business, in which many millions of English capital could be most profitably invested, and in the pursuit of which many thous-

ands of our adventure-loving young men could find a lucrative and fascinating employment. It is to be hoped that it will keep its fair fame, and consequently the public confidence.

In 1882 prices of cattle went up considerably, in certain localities as much as 30 per cent., and the question now most frequently asked of men acquainted with the West is, "Will cattle prices continue so high, and is it not too late to start into the business?" There are several reasons why I think prices will not only not go down, but rise. First, statistics prove that the increase of cattle has not kept on a level with that of the population of the United States, being last year only as 1½ per cent. in cattle to 2 per cent. in population. Secondly, the increasing wealth of the population makes the laboring man indulge more largely in meat diet than he did before. Thirdly, the creation of a local demand in the cattle country itself by the vast immigration from Europe, and by the yet more important emigration of Americans from the older Central States to the Western Territories, attracted by the mining and agricultural resources. Fourthly by the rapidly growing demands of the export trade in dead and live meat, which last year took 200,000 head of cattle. Fifthly, by the as rapidly increasing wants of the Government (Indian Bureau), which, now that game is becoming extinct, has to feed the remaining hundreds of thousands of Indians on beef; for, with a few exceptions, they can no longer get their sustenance by the chase. The meat contracts let out annually at Washington are assuming enormous proportions. And sixthly, in consequence of the steady rise in the value of land in the Central States, making the rearing of beef cattle in Illinois, Iowa, and adjacent States no longer profitable, for naturally farmers there cannot compete with Western cattle-raisers, who "free range" their stock on public land, costing them nothing for keep.

I might add that the lively competition which probably will arise next spring, caused by the large amount of English capital thrown for investment upon the Western cattle market, will also, and very naturally, tend to keep up prices, though this in itself, partaking too much of the nature of a "boom," would not be a healthful sign.

"Balliol" speaks very hopefully of the future of stock-ranching companies. No doubt a very few years will find slaughter houses on a large scale erected along the main trans-continental lines. The exportation of two-year-old steers to England, to which he also alludes, promises larger profits when once this business is established on a fixed basis, *i. e.*, the transport by land and sea contracted for and not subject to the sudden vagaries of American railway companies. I heard of an experimental shipment of a little herd to Liverpool, which landed there, stood in at £15 10s.; they found ready sale at £22 a head for Scotland.

WM. A. BAILLIE-GROHMAN.

Queen Anne's Mansion, St. James's Park.

DEER LODGE, bathed in summer's sunshine, fanned with exhilarating zephyrs, tempered and sweetened by floral-clad streamlets of pure waters rippling down from eternal snows that grace the heights of pine-wreathed mountains whose grand old summits seemingly pierce so far into and brace up heaven's blue arches, possesses charms and has only to be seen to be admired. The streets are wide, the lots are deep, and many are its beautiful door-yards, green, shaded walks, and elegant residences. For an attractive city home in the midst of mountains, notwithstanding there is Bozeman, Missoula, White Sulphur Springs, and other towns, well advanced competitors, Deer Lodge, the "Queen City of the West Side," is still entitled to the palm.—Will Sutherland in *Montana Husbandman*.



## OFFICIAL RECORD.

In this Department is given official information concerning the affairs of the Companies included in the "Villard System," namely, the Northern Pacific Railroad Company, the Oregon and Transcontinental Company, the Oregon Railway and Navigation Company, the Oregon and California Railroad Company, and the Oregon Improvement Company.

## LITTLE FALLS AND DAKOTA R.R. CO.

The following Directors were elected at the Annual Meeting, July 12, 1883—

T. F. Oakes, George Gray, T. H. Tyndale, Frederick Billings, George H. Adams, H. Haupt and W. P. Clough.

The Executive Committee chosen July 12, consists of—

T. F. Oakes, T. H. Tyndale, George H. Adams.  
The Officers of the Company elected July 12, are—  
President, T. F. Oakes; Vice-President, George Gray; Treasurer, Horace White; Secretary, George V. Sims.

## OREGON AND TRANSCONTINENTAL COMPANY.

The following Board of Directors has been elected for the year ending June 30th, 1884—

Henry Villard, New York; Horace Porter, N. Y.; Edward D. Adams, N. Y.; Frederick Billings, N. Y.; Anthony J. Thomas, N. Y.; E. P. Fabbri, N. Y.; Wm. Endicott, Jr., Boston, Mass.; N. P. Halliwell, Boston, Mass.; J. N. Dolph, Portland, Oregon; C. H. Prescott, Portland, O.; Henry Failing, Portland, O.; C. H. Lewis, Portland, O.; Paul Schulze, Portland, O.; Geo. J. Alsworth, Portland, O.; C. A. Dolph, Portland, O.; R. Koehler, Portland, O.; Joseph Simon, Portland, O.

The Officers of the Company, as re-elected for the current year, are—

Henry Villard, President; J. N. Dolph, Vice-President; Anthony J. Thomas, Second Vice-President; Joseph Simon, Secretary; Charles A. Spofford, Assistant Secretary; C. H. Prescott, Treasurer; Edward Edes, Assistant Treasurer.

Northern Pacific Railroad—Western Divisions, Oregon Railway & Navigation Co., Oregon & California Railroad Co., Pacific Coast S. S. Co.

## TRAFFIC DEPARTMENT.

PORTLAND, OREGON, June 25th, 1883.

By authority of the management of the lines above named, Mr. E. P. ROGERS is appointed General Agent, Passenger Department, with office at Portland, Oregon.

JOHN MUIR, Supt. of Traffic.

## SECOND ANNUAL REPORT OF THE BOARD OF DIRECTORS OF THE OREGON AND TRANSCONTINENTAL CO.

To the Stockholders: The Board of Directors submit to you herewith their account of the administration of your affairs during the past fiscal year. In order that it may be properly understood, your Board deem it desirable to recall to you once more the purposes for which the Company was formed, as they were stated in the last annual report, viz.:

I. To acquire and hold a controlling interest in the stocks of the Northern Pacific and Oregon Railway & Navigation Companies.

II. To promote the Company's own interest, as the holder of such stocks, by the creation of such auxiliary systems of railroad, steamship and steamboat lines as would tend to protect and increase the transportation business of these two corporations.

III. To engage in such other commercial and industrial enterprises as would tend to hasten and widen the general development of the States and Territories traversed by the Northern Pacific and Oregon Railway & Navigation Companies' lines.

The past corporate year has strengthened our conviction that no corporation in this country has ever undertaken a greater or more proper and promising work than that defined and prescribed in this programme. To show its magnitude, it is only necessary to point out the vast extent of your Company's field of operations, which, beginning on Lake Superior and in the twin cities of St. Paul and Minneapolis, stretches across the continent, through Minnesota, Dakota, Montana, Idaho, Washington Territory and Oregon, and reaches its furthest limit on the Pacific Ocean and the northern boundary of California. To demonstrate the fitness and profitability of our work, it suffices to refer to the fact that we have undertaken the general development of a territory representing one-sixth of the area of the entire United States, and which, in its beauty and variety of scenery, climatic conditions and wealth of agricultural, mineral and other natural resources, presents as sure guarantees of a prosperous future as any part of the Union.

## FINANCIAL STATUS.

Before entering upon a detailed description of the results accomplished in the course of the year, in pursuance of the foregoing programme, an account of the resources at the disposal of the Company, as shown by its financial status, will first be in place.

As stated in our last annual Report, only \$23,760,000 of the \$31,000,000 of capital stock authorized by the Board of Directors had then been paid for and issued. The remaining \$6,240,000 have been paid for and issued during the current fiscal year, as also an additional issue of \$10,000,000, authorized by the resolution of the Board of September 27th, 1882, so that the outstanding capital stock at the end of the fiscal year was \$40,000,000.

Of the new issues during the year, 50,000 shares were exchanged for 50,000 shares of Northern Pacific preferred stock, and the remainder sold in large blocks for cash to various parties.

By the resolution of September 27th, 1882, the proceeds

of these several issues were to be used for the following purposes:

I. To complete the construction of branch lines of the main line of the Northern Pacific Railroad in which this Company is now engaged, as described in the report to the stockholders of this Company for the year ending June 30th, 1882, and to extend such branch lines as may be recommended by the Engineering Department of the Northern Pacific Railroad Company, so as to be in a position to defer further issues of mortgage trust bonds, until they can be disposed of at not below the par of their nominal value.

II. To make provision for the payment of the subscription for the proportion of the anticipated increase of the capital stock of the Oregon Railway and Navigation Company, from \$18,000,000 to \$24,000,000 to which this Company shall be entitled.

III. To enable the Company, if it shall be considered expedient so to do, to still further increase its present holdings of the stocks of the Northern Pacific and Oregon Railway & Navigation Companies, without borrowing money for that purpose.

Large as the capital of the Company is, it is, as shown by the practical experience of the last two years, not in excess of its requirements. For, in the first place, the Company's foremost object, that is, the holding of a controlling interest in the stocks of the Northern Pacific and Oregon Railway & Navigation Companies, necessitates a certain restriction and fixedness in the use of the larger portion of the capital, which naturally make the resources available for active employment much smaller than its nominal amount.

Secondly, the financing and construction operations of the Company created such a variety of uses for the liquid capital, that the supply never exceeded the demand. On the contrary, although the range of operations was very extensive, as will appear in the following, the Company was far from being able to take in hand all the profitable work that offered. It is a fact, indeed, that there is practically hardly a limit to the varied, safe and lucrative use of capital within the immense regions, the general growth of which we have undertaken to promote.

We deem it proper to state, in this connection, that the employment of your capital was strictly confined to the furtherance of the objects for which the Company was formed. Not the smallest part of it was used at any time outside of what we consider the legitimate and prescribed limits for its use. We believe that strict adherence to this course is necessary to secure to the management your and the public's confidence, and to insure satisfactory returns upon your investment.

Your board deemed it prudent, for the better protection of your own interest as stockholders, not to promulgate certain details of the financial status of the Company, especially as regards its investments, during the earlier stages of its existence, and until the success of the enterprise in whose securities our largest investment had been made, viz., the Northern Pacific, was assured by the completion of its main line. As the latter consummation will be reached in a few weeks, and as this Company has now proved a satisfactory earning capacity, your board no longer sees any reason for caution in this respect. You will find, therefore, in the exhibit printed herewith, a statement of the holdings of the Company of Northern Pacific and Oregon Railway & Navigation stocks. It shows that at the close of the fiscal year, that is, on June 30, 1883, these holdings were:

Northern Pacific Common.....	162,792 shares.
Northern Pacific Preferred.....	151,300 "
Oregon Railway & Navigation (including new stock).....	128,535 "

The capital stock of the Oregon Railway & Navigation Company, upon the issue of the additional shares now being paid for at par in installments, will be \$24,000,000, represented by 240,000 shares. With the shares to which it will become entitled upon the payment of the last installment, the Company will own 8,535 shares more than an absolute majority of the outstanding stock, on which it will receive regular dividends at the rate of ten per cent. The outstanding stock of the Northern Pacific Railroad Company was, on June 30, 1883:

Common stock.....	490,000 shares.
Preferred stock (not deducting cancellations during the fiscal year 1882-'83).....	419,091 "
Total.....	909,091 shares,

of which total the above holding represents 34.894 per cent., or more than one-third of the existing stock capital. In the opinion of your Board this holding is sufficient for continued control of the Company. It is, however, in the power of the Company to enlarge its ownership of Northern Pacific stocks at any time. We would mention that sufficient stock is owned and represented by your Directors as well as by the Directors of allied corporations to constitute, together with the holding of this Company, an absolute majority.

As already indicated, the Company carried on during the year both financial operations and construction work, of which the details are herewith given.

## FINANCIAL OPERATIONS.

Issue of Bonds.—You were informed in our first annual report that temporary certificates for \$6,000,000 of First Mortgage Collateral Trust Bonds, to be issued against 300 miles of completed road, had been offered to, and taken by, the stockholders towards the end of the fiscal year 1881-'82. During the first months of the past year, certificates for an additional amount of two millions of like bonds were sold. At the close of 1882 the full mileage, represented by this total issue of \$8,000,000, was completed.

But, owing to the sale of mileage to the St. Paul, Minneapolis & Manitoba Company, as hereafter more fully explained, delivery of bonds only to the amount of \$6,000,000 could, at that time, be made in exchange for temporary certificates. Additional construction will enable the Company to complete the delivery of the entire eight millions early in the new fiscal year.

The sale of 118½ miles of branch lines, mentioned in the foregoing, constituted one of the largest financial transactions during the year. It was made in pursuance of a contract entered into between the Northern Pacific and the St. Paul, Minneapolis & Manitoba Railroad Company, for the permanent settlement of long-pending difficulties, by means of an exchange of auxiliary lines, which would make the Northern Pacific system a strictly East and West one, and that of the other Company a North and South line. Your Board considered it in the interest of this Company, as the largest stockholder in the Northern Pacific, in order to put a definite end to the invasion of the latter's territory, to consent to the sale, at cost and interest, of the following lines:

Cassellon Branch.....	46 miles.
Manitoba-Southwestern Colonization Railway.....	50 "
Pelican Branch of the Northern Pacific, Fergus Falls and Black Hills Branch.....	23½ "
Total.....	118½ mls.

The sale of the Cassellon Branch also included 30 miles of grade. Under the same contract, this Company bought, also at cost and interest, from the St. Paul, Minneapolis & Manitoba Company, thirty-eight miles of finished grade, extending westward from the terminus of the Northern Pacific, Fergus Falls and Black Hills Branch, on the Red River, and twenty miles more of partly finished grade upon another line.

All the branch lines constructed and being constructed so far in Minnesota, Dakota and Montana, have been and will be financed under the plan first communicated to you by circular of May 31, 1882, and subsequently reprinted in our first annual report. But in the case of one of the branches, that is, the Columbia & Palouse Railway, in Eastern Washington Territory, the greater cost of the line compelled the adoption of a different plan, according to which a total issue of \$30,000 per mile of finished road in first mortgage collateral trust bonds will be made by this Company against a like amount of the first mortgage bonds of the Columbia & Palouse Railway Company. Under traffic contracts with the Northern Pacific and Oregon Companies, each of these corporations becomes responsible for the interest and sinking fund charges on half of the issue of \$30,000 per mile, and receives a full half interest in the entire stock capital of the branch company, held in trust to assure the payment of the principal and interest of the bonds, and a harmonious joint ownership and other benefits.

The construction programme adopted for the year 1883-'84 includes about two hundred and fifty miles of new road (exclusive of the one hundred miles necessary to make up the deficiency above mentioned), of which one hundred and forty miles will be financed under the regular plan, and eighty miles will form part of the Columbia and Palouse line. The disposition of the remaining thirty miles, being the important line along the shore of Puget Sound, connecting Tacoma with Seattle, is held in abeyance.

## AID TO THE NORTHERN PACIFIC.

By far the most important financial transactions were those occasioned by the requirements of the Northern Pacific Railroad Company, the origin of which will be best understood from the following extract from the report of the Board of Directors of that Company to its stockholders, for 1881-'82:

"When the contract with the Syndicate (for the sale of \$40,000,000 General First Mortgage Bonds) was entered into, it was practically impossible, owing to the incompleteness of the labor of the engineers, to make accurate calculations as to the period of time and the current supplies of money required for the vast work of building nearly one thousand miles of new, and, in great part, very difficult road, mostly through unsettled regions destitute of construction facilities. Financial arrangements were made in the light of the best information then extant, which, however, proved deceptive. It soon became apparent that, in order to work without great waste of time and loss of money, it was indispensable, in the first place, to build simultaneously from both ends of the main line, and, secondly, to begin at once all the heavy work upon its entire length. This involved the shipment of millions of dollars' worth of track material, motive power and rolling stock to the Pacific coast, many months before their actual use on the road; and on the line east of the Rocky Mountains very large expenditures of cash a long time before the works resulting from them could become parts of finished road."

"Thus there came calls upon the treasury far in excess of the proceeds of bonds received from the Syndicate, and of net earnings; and what added to the embarrassment of the situation was the impossibility of issuing bonds and delivering them to the Syndicate, except upon the mileage of completed road approved by the Government, owing to a provision of the mortgage under the requirements of the Plan of Reorganization."

The Northern Pacific, however, needed working capital not only for the purposes and from the causes described. In the operation of the completed portions of the main line it became apparent that the requirements of traffic called for the immediate construction of two large and expensive bridges, one over the Snake River (at its confluence with the Columbia), and the other over the Willamette at Portland, Oregon. Owing to the small rate per mile at which the main line is mortgaged, no provision could be made for these extra improvements out of the proceeds of the general first mortgage bonds, and hence separate financing was unavoidable. Again, the Northern Pacific was not in a position to provide the equipment of motive power and rolling stock required for the operation of the lines built by this Company. As already explained, it is expected that by the end of 1883 there will be six hundred and fifty miles of branch lines fully completed, the equipment of which mileage involves the outlay of large capital.

It is clear from these explanations, that the financial assistance wanted by the Northern Pacific partook of a double character, viz.: temporary advances in connection with the construction of the main line, which could be readily repaid out of the proceeds of the General First Mortgage Bonds, as they became available upon inspection and acceptance of completed road by the Government, and other advances, for which reimbursement could only be made by the issue and sale of separate securities.

In the judgement of your Board, nothing was clearer than that this Company should furnish the aid required by the Northern Pacific, as far as it could be done with safety. For, by this course it promoted its own interest as the largest Northern Pacific stockholder, in not only protecting the credit of that Company from the unavoidable injury which its continuous appearance in the loan market as a borrower would work, but in improving that very credit by the steady support of our large capital, and thus guaranteeing, as it were, to the public interested in Northern Pacific securities, the completion of the main line across the continent, or, in other words, the certain success of the enterprise.

Accordingly, a regular arrangement was entered into, under which this Company gave to the other whatever assistance it needed from time to time, in the form of both cash advances and loans of credit. The soundness of this policy is shown by the result. No new railroad enterprise in this country enjoys a higher credit than the Northern Pacific. Its securities form almost the only exception to the general rule of depreciation that has prevailed in the bond and stock market during the last two years. The fact is so patent as hardly to require an affirmation that the high standing thus obtained for the Northern Pacific has reacted strongly to the benefit of this Company, and of all other allied interests. It was, indeed, the corner stone, so to speak, of our entire edifice.

The amounts of the advances to the Northern Pacific naturally varied considerably in the course of the year. Their maximum amount was \$8,338,837.4, while at the close of business on June 30th, they were \$2,719,299.17. All advances were secured by the pledge of the assets of the debtor Company.



## OREGON AND CALIFORNIA RAILROAD COMPANY.

This Company was engaged for a large portion of the year in negotiations for a lease of the Oregon & California Railroad Company's system of standard gauge lines. The Board takes much satisfaction in announcing to you the final success of their efforts in this direction.

The Oregon & California Railroad Company, organized under a State charter, is the successor, by consolidation, of the original Oregon & California, Oregon Central and Western Oregon Railroad Companies, of which corporations the two former had been the recipients, through acts of the Oregon Legislature, of grants to the State by the United States Government, amounting to 12,800 acres per mile for a total authorized mileage of about 500 miles.

The original Oregon & California Company constructed 300 miles of standard gauge road in 1870 and 1871, from Portland up the Willamette River to Roseburg, in the valley of the Umpqua. Simultaneously, the Oregon Central Company built fifty miles from Portland in a southwesterly direction to the Yamhill River. The Western Oregon Company, in 1878, constructed an extension of the latter for fifty miles. Later a branch eleven miles long was built from the Oregon and California line. The Oregon & California and Oregon Central Companies became bankrupt ten years ago. The European mortgage creditors obtained control in 1878, but the Companies were not formally reorganized and consolidated with the Western Oregon until 1881. Under the reorganization, the principal of the first issue of bonds, amounting to \$10,920,000, was liquidated by the issue of \$12,000,000 of Preferred stock, and the unpaid interest by \$7,000,000 of Common stock. Provision was also made for a new mortgage covering the road and land grant, under which bonds at the rate of \$30,000 per mile on the mileage, completed and to be completed, could be issued. The proceeds served, first, to extinguish a prior lien of \$2,000,000, arising from the construction of the Western Oregon Road, and, secondly, to furnish the means to finish, in accordance with the original programme, the main line from Roseburg to a junction with the Central Pacific system at the California boundary, and also the means for other authorized lines, the construction of which might be deemed desirable.

After the definite location, subsequent to the reorganization of the Southern extension, about 177 miles in length, the Engineers' estimates showed that the proceeds of the new issue of bonds would not suffice to complete it, owing to its exceedingly difficult character. In order to meet the deficiency, with the unanimous approval of the preferred stockholders, without the consent of the majority of whom no new mortgage lien could be created, a second mortgage was made, providing for an issue of seven per cent. bonds at the rate of ten thousand dollars per mile on the old and new mileage.

The President of this Company has had the direction of the affairs of the Oregon & California Company almost without interruption since 1874. He steadily pursued the ulterior purpose of making the Oregon & California part of the transcontinental system represented by the Northern Pacific and Oregon Railway & Navigation Companies' lines. But he had the conviction at the same time that such a consummation would be premature, and not to the advantage of any of the corporate interests involved, until, in the first place, the completion of a transcontinental line giving Oregon direct rail connection with the rest of the Union; and, secondly, until the fulfillment of two absolutely indispensable conditions, viz.: that the Oregon & California Company itself could command the means wherewith to complete its system of roads to a junction with that of the Central Pacific, and that a satisfactory arrangement with the latter Company for an exchange of business on just terms could be obtained.

The impending completion of the Northern Pacific main line will give Oregon an all-rail connection with the East. The first of the mentioned conditions is now assured by the sale of enough of the mortgage obligations of the Oregon & California Company to provide the money to build and equip the road to California, and the second by a proper traffic contract with the Central Pacific Company.

In consideration of all this, your Executive felt justified in recommending to your Board, the conclusion of—

1. A construction contract between this Company and the Oregon & California Company, for the completion of the latter's main line to the California boundary, with an option to complete its other authorized lines on stated terms.

2. A temporary lease of the Oregon & California system for three years, with an option for its extension to 999 years.

When the construction contract went into effect, about 127 of the total length of 177 miles of the main line remained to be completed. The estimates of the engineers, including liberal allowances for possible underestimates and other contingencies, call for \$4,846,201, ready money, for this work. Under the contract this Company is to receive for it:

1st Mortgage bonds.....	\$3,670,500
2d Mortgage bonds.....	3,750,000

Contracts have been entered into with leading banking firms in this country and Europe for the sale of sufficient of these securities to render it easy to provide all the funds for the completion of the line.

Since the conclusion of the construction contract, this Company has decided to build the short extension (about twenty-five miles) of the Oregon & California line, up the left bank of the Willamette River, from Corvallis to Junction City.

The terms of the lease are:

1. That the lessee Company pay as rental, during the first three years of the lease:

a. All fixed charges on the mortgage indebtedness.  
b. A dividend at the rate of 2½ per cent. per annum on 12,000,000 of preferred stock.

2. That upon the expiration of the three years, the rental for the remainder of the 999 years, shall be 3½ per cent. of the gross earnings, with a guarantee on the part of the lessee Company, that this percentage shall be equal to the fixed charges and to a minimum dividend of 2 per cent. on the preferred stock. The lessor Company is entitled, moreover, to call for a re-adjustment of the percentage of earnings, whenever the operating expenses shall be at least 3 per cent. less than 65 per cent., during a period of three years.

The lease is to be considered as having taken effect on January 1, 1883. Including the coupon due July 1, 1883, the interest on the first mortgage bonds is paid, under the terms of reorganization, out of the construction funds, and in consideration of the guaranteed dividend of 2½ per cent., the lessee company receives an extra allowance of \$300,000 in second mortgage bonds.

The main line will be finished to the California boundary no later than October 1, 1884. Up to that time this Company

will have to provide for one year's interest on an estimated average of outstanding bonds of

\$8,500,000 at 6 per cent.....	\$510,000
2½ per cent. dividend on \$12,000,000.....	300,000

Total.....\$810,000

The current earnings, now running at the rate of \$350,000 net per annum, and the extra allowance of securities, will readily provide for this amount.

Upon the completion of the southern extension and the Corvallis-Junction line, the Oregon and California system will represent a total of 512 miles of standard gauge road, mortgaged and bonded as follows:

1st Mortgage Bonds, \$30,000 per mile on total mileage.....	\$10,240,000
2d Mortgage Bonds @ \$10,000 per mile 4,000,000	
Fixed interest charge, being 6 per cent. on the former, and 7 per cent. on the latter.....	\$894,400
Minimum guaranteed dividend of 2 per cent. on \$12,000,000 preferred stock.....	240,000

Total fixed charges upon completion of the main line.....\$1,181,400

The first mortgage provides for payments to a cumulative sinking fund, at the rate of one per cent. per annum from July 1st, 1885.

In another part of this report, special mention is made of the great importance and the earning capacity of the Oregon and California lines. Suffice it to say in this place, that there is every reason to expect their earnings to increase to \$3,000,000 a year gross immediately upon being joined to the Central Pacific system, with an assured steady growth in the future. Moreover, the local and through business of the Oregon & California Company will be so essential to both the Northern Pacific and the Oregon Railway & Navigation Company, that it will readily obtain an indirect income by allowances from those companies out of their earnings from this traffic. Your management is confident, in short, that the lease of the Oregon & California will not only impose no burden on the Company, but will prove profitable from the beginning.

The Oregon & California possesses a great additional resource in its large land grant. Within its limits is comprised what is probably the finest belt of timber for lumbering purposes in this country. The proceeds of the lands will provide for a rapid reduction of the principal of the first mortgage indebtedness.

## CONSTRUCTION WORK.

In our first annual report, the construction programme for the past year was fully explained, and the several branch lines to be built described in detail. The work actually done during the year 1882, was as follows:

1. The line of the Manitoba Southwestern Colonization Railway Company was completed for fifty miles from the City of Winnipeg, its starting point.

2. The Casselton Branch was completed to a point forty-six miles north of its junction with the Northern Pacific main line, and the grade extended thirty miles farther north.

As above explained, both these lines were sold during the year.

3. The Fargo and Southwestern Branch, extending from the city of Fargo, on the Red River, in a southwesterly direction, was completed for fifty-six miles to the town of Lisbon. It runs through a very fertile region, equal all the way to the Red River Valley, and bids fair to be the most promising of all the branches in Dakota. It did a very gratifying business during the past spring.

4. The Little Falls and Dakota Branch was finished in the most thorough manner, from Little Falls to the town of Morris, a distance of eighty-seven miles. It passes through a fine country, with many growing towns. It has been regularly operated during the past few months, and the development of traffic upon it is satisfactory.

5. The contract made for the completion of the Northern Pacific, Fergus and Black Hills Branch, from Fergus Falls to Breckenridge, on the Red River, a distance of twenty-six miles, was fully carried out, and the line has been in operation to the last-mentioned point from Wadena, on the Northern Pacific main line, to a distance of seventy-eight miles, since the fall of 1882. The country is so well settled, that the line is already doing a good business.

6. The Jamestown and Northern Branch was built from Jamestown, on the main line, for a distance of forty-six miles. This mileage was finished late in the fall, but not regularly opened until the spring. The result has been, as anticipated, that a very large immigration was attracted to the tributary territory. No other part of Dakota has received more new population.

7. Owing to the absorption of the available labor and material by construction on the main line of the Northern Pacific and the several lines of the Oregon Railway & Navigation Company, in Oregon and Washington Territory, less work than expected was done on the Columbia and Palouse branch. The line was only graded for about forty miles.

The line of the Puget Sound Shore Railroad Company (another branch company organized by this Company) from Tacoma, the terminus of the Northern Pacific on Puget Sound, to the important town of Seattle, was also commenced, but the contract for the work was let too late in the season to permit of much progress.

## CONSTRUCTION IN THE NEW FISCAL YEAR.

Under the head of "Financial Operations," it has already been stated that the Company proposes to build altogether during the new year about 350 miles of new road, of which above one hundred miles will replace the mileage sold. This total will be made up by new mileage along the various branch lines, as set forth in the following:

The Fargo and Southwestern Branch will be extended in a southwesterly direction to the James River, so as to make the aggregate distance from Fargo about 100 miles. The construction of this line is greatly promoting the rapid settlement of the adjacent country.

The Northern Pacific, Fergus and Black Hills Branch is being extended from Breckenridge over the grade acquired from the St. Paul, Minneapolis and Manitoba Company, in a due westerly direction, to a junction with the Fargo and Southwestern, a distance of about one hundred miles. This extension will add greatly to the traffic of this branch.

The Jamestown and Northern Branch will be constructed a distance of forty-seven miles to the west end of Devil's Lake, the region around which has attracted a flood of new settlers in consequence of the opening of an Indian reservation.

The Columbia and Palouse Branch is expected to be completed to the town of Moscow, a distance of eighty miles. It traverses the finest part of the rolling wheat lands of Washington Territory, and will at once command a considerable traffic.

The Tacoma and Seattle line will also be completed during the present season. It will be a link in the great all-rail coast route, spoken of in connection with the Oregon & California Railroad Company, and of great importance as such.

The definite location of the line to the National Park having been made, last season, from Livingston, on the Northern Pacific main line, up the Yellowstone River, the actual construction of this indispensable branch was commenced this spring, just as soon as work became at all practicable in those altitudes. Every effort is being made to assure its completion by the middle of August, and there is every indication that this will be done. The line will be a little over fifty-seven miles long, and presents no great difficulties.

As related in the following, the means for the construction part of the work of the St. Paul and Northern Pacific Company has been secured by the sale of \$5,000,000 of its bonds. As soon as the proceeds of the bonds became available, orders were given to commence, and push the work with all possible vigor. The line from Sauk Rapids to Minneapolis will no doubt be completed this year, and a good beginning made with the terminal facilities in both that city and St. Paul.

So much has already been said, in another part of this report, of what is really the greatest construction undertaking of this Company, viz.: the completion of the main line of the Oregon & California Company to the California boundary, that no new reference need be made to it in this connection.

## FORMATION OF TERMINAL COMPANIES.

Ever since the organization of this Company, your executive has considered it as one of his most important duties to make early provision for ample terminal facilities at both the eastern and western ends of the great transcontinental system which we have undertaken to create and develop. He was anxious to avoid the hampered growth, obstruction of traffic and greatly increased expense experienced by almost every great railroad in the United States from lack of foresight in this respect. This Company commenced active efforts in this direction at an early date, and the Board have the pleasure of informing you that they have met with complete success in an unexpectedly short time, and to a gratifying degree. The results accomplished, as detailed in the following, represent perhaps the most important feature in the year's work of the Company.

The problem before your management was the creation of proper terminal facilities at Portland, Oregon, and in the cities of St. Paul and Minneapolis equal to the requirements of a railroad system, already aggregating over three thousand miles and bound to increase very rapidly, as well as of the vast tributary ocean and river transportation on the Pacific coast. In view of the fact that several distinct corporations are to be served, it was judged best, after mature consideration, to bring about the desired end by means of the organization of two new companies.

## THE NORTHERN PACIFIC TERMINAL COMPANY, OF OREGON.

This Company was organized under the general laws of Oregon, with a perpetual charter and a stock capital of \$3,000,000, held in the following proportions by the three companies for whose benefit the project was formed:

Northern Pacific.....	40 per cent.
Oregon Railway & Navigation Co.....	40 "
Oregon & California.....	20 "

A total issue of \$5,000,000 six per cent. gold bonds, by the Terminal Company was authorized, to provide the means to purchase terminal grounds, and to erect the requisite improvements thereon. The bonds to be secured by an only mortgage on all the properties of the Terminal Company, and a lease thereof to the Northern Pacific Railroad, the Oregon Railway & Navigation, and the Oregon & California Railroad Companies, jointly and severally for fifty years at a rental:

Semi-annually, sufficient to pay the interest upon all bonds of the Terminal Company, at any time outstanding, and such installments to the Sinking Fund as will redeem them all on or before maturity, and

Quarterly, sufficient to pay all taxes, insurance, repairs, and other expenses.

The entire Capital Stock is now held in trust by the Central Trust Company, of New York, as Trustee, for delivery only to said three Companies when their payments to the Sinking Fund of the Terminal Company shall have provided for the redemption and cancellation of the entire issue of First Mortgage Bonds, or until they shall have been otherwise paid.

Only \$3,000,000 of the authorized \$5,000,000 were issued and readily sold at par. With the proceeds there has been acquired extensive real estate, both in the city of Portland, on the left bank of the Willamette, and in East Portland on the opposite bank. The property in Portland proper comprises some sixty acres, adjoining the business portion of the city, with the use of 2,300 feet of dock facilities on the river bank. Union passenger and freight depots will be erected thereon. In East Portland the purchases comprised 240 acres, with a mile of water front, on which wharves, warehouses, coal and ore bunkers, a grain elevator of large capacity, a round-house, and extensive machine shops will be built. The respective properties and improvements will be connected by a bridge over the Willamette River, now being constructed by the Northern Pacific Railroad Company.

Owing to the ready sale of the Terminal Company's bonds, there was no occasion for this Company's financial intervention. Its influence with the controlled Companies was naturally, however, a potent factor in the promotion of the general project.

## THE ST. PAUL AND NORTHERN PACIFIC RAILWAY COMPANY.

In considering the remaining part of the terminal problem, with reference to St. Paul and Minneapolis, in neither of which cities the Northern Pacific had any terminal facilities worth speaking of, the conclusion was reached that it would be best to find a solution in connection with the necessity of providing the Northern Pacific with a line of its own into Minneapolis, instead of the use of another company's line under a lease, to which it has so far been limited. In order to meet these several wants, it was decided to utilize the existing Western Minnesota Company. This Company was organized in 1874 by the leading stockholders of the Northern Pacific for the special purpose of succeeding to the franchises of the St. Paul and Pacific Brainerd Branch, including a land grant of about 244,000 acres, and of obtaining a connection with Minneapolis and St. Paul for the Northern Pacific. To the latter end it built a line from Brainerd, on the Northern Pacific main line, to Sauk Rapids, and entered into a lease giving it the perpetual right to use the line of the St. Paul, Minneapolis and Manitoba Railroad Company from Sauk Rapids into the two cities.

But in order to render the Western Minnesota Company available for the stated purpose, it was indispensable to enlarge its corporate powers. A condition precedent to this



was the purchase of the minority stock. This was a long and difficult operation, but finally every outstanding share of stock was secured. Amended articles of incorporation were thereupon filed, under which the name of the Company was changed to the St. Paul and Northern Pacific Railway Company, and authority was acquired to increase the capital stock and mortgage indebtedness, and to build additional lines of road. Next, a mortgage was authorized covering all present and future properties of the Company, under which a maximum of ten millions of six per cent. gold bonds could be issued, of which \$573,000 are for the redemption of the existing issues of Western Minnesota bonds; \$2,000,000 for branches and tracks at the rate of \$20,000 per mile, and the remainder for the following, among other objects, as particularly set forth in the deed of trust:

1. To extend the Company's existing line from Sauk Rapids to Minneapolis, a distance of ninety-two miles, including a bridge over the Mississippi.

2. To acquire suitable grounds for terminal facilities in St. Paul and Minneapolis.

3. To build a double track line from the principal terminal grounds, half way between St. Paul and Minneapolis, to the former city.

4. For the erection of union passenger and freight stations both in St. Paul and Minneapolis, and also of freight yards, round-houses, machine and car-shops, cattle-yards, slaughter-houses, and whatever other appliances and conveniences the Northern Pacific transcontinental traffic required.

Long before the organization of the St. Paul and Northern Pacific Railway Company, in fact, immediately after this Company commenced exercising a controlling interest over the Northern Pacific, your executive took measures to acquire the requisite real estate for terminal purposes. A beginning was made in Minneapolis by the purchase of twenty acres, which transaction was followed during the latter half of the fiscal year by the purchase of three hundred and eighty acres within the limits of and adjoining St. Paul. These transactions in both places had to be conducted with the utmost quietness and secrecy. This was done so successfully that in neither case was the real object of the purchase understood until it was made, and the properties were obtained at satisfactory figures.

An indenture of Contract and Lease was entered into between the St. Paul and Northern Pacific and the Northern Pacific Companies, under which all of the former Company's property is leased to the latter for 999 years. The lease provides that the Northern Pacific Railroad Company shall equip, operate and maintain the road and its terminal property, paying all taxes that may be levied upon the same, and a net rental, quarterly, equal to forty per cent. of the gross earnings and receipts, which it is guaranteed shall never be less than the interest upon the entire issue of bonds. It further provides, in order to insure the permanency of the control of the terminal line to the Northern Pacific, which company owns a majority of the stock, that its entire capital stock shall be deposited with the Farmers' Loan and Trust Company, of New York, as Trustee, with power to the Northern Pacific Railroad Company to vote the same for the renewal of the charter, election of Directors and officers, and for such other action as may be advisable or necessary for the purpose of maintaining the terms and conditions of the existing Contract and Lease, until default is made in any of its terms by the Northern Pacific Railroad Company.

These preliminaries having been settled, this Company entered into a construction contract with the St. Paul and Northern Pacific Company for all the work enumerated in the foregoing.

This Company next made an agreement with an association of bankers for the sale of \$5,000,000 of the authorized issue of \$10,000,000 bonds at par, less a commission. This sale was actually effected on the last day of the fiscal year. Out of the proceeds this Company will be reimbursed for all its outlay, including interest and a moderate commission, but will make no other profit whatever out of the transaction, as under the construction contract its allowance for work is simple cost and interest, beyond which it has no liability.

#### THE PROSPECTS OF THE CONTROLLED COMPANIES.

It will be readily understood that, in view of the close identification between this company and the three corporations controlled by stock ownership and by lease, in considering the prospects of the latter we shall be really defining our own.

As regards, first, the Northern Pacific, we had hardly assumed control, two years ago, upon the formation of this Company, when its financial outlook became very much overcast through the universal depression following the violent death of President Garfield, and subsequently through the hostile demonstrations in Congress against the Company's rights to its land grant. At that time there remained to be built nearly nine hundred miles of the main line, and only \$3,000,000 of the general first mortgage bonds had been actually sold, leaving over \$25,000,000 actual money yet to be raised for construction and equipment. The gross earnings for the year 1880-81 were but \$2,994,519.49. The land sales in the same year were \$2,398,879.

The present situation presents a most striking contrast to that of two years ago. The main line is finished with the exception of less than one hundred miles, which are ready for track laying, and will go into operation as a connected through line within sixty days. The gross earnings for 1882-83 (actual for eleven months, and estimated for one) were \$7,814,502.71. The land sales for the same period were \$3,392,750.

Now, let it be borne in mind, in conjunction with these results of an incomplete main line, that immediately upon its opening as a through line the Northern Pacific will receive local and through traffic from two thousand miles of railroad, awaiting connection on the Pacific Slope, and extending from the Rocky Mountains to the ocean, and from Southern Oregon to Puget Sound. The population within those limits produces and consumes, as shown by the traffic statistics of the Oregon Railway & Navigation Company, at an extraordinary rate. It is twice as large as that of Colorado, which produced \$8,000,000 gross earnings last year for four trunk lines, with an average through haul of only 60 miles. The Northern Pacific will have only one competitor to share in a portion of the through and local business, and will have a haul twice and three times as long as that of the Colorado lines on all it will receive. Montana, Oregon and Washington Territory already now attract a very large immigration. With the saving in time and expense, and the much greater convenience of reaching them upon the completion of the Northern Pacific, this movement of population should naturally become much greater.

Judging the earning powers of the Northern Pacific in the light of all this, we feel safe in estimating that its gross earnings will be at the rate of fifteen millions per annum from its regular opening for through passenger and freight business, with the certainty of constant increase apace with the general growth of the tributary States and Territories. The question of the percentage of earnings, at which the main

line could be operated, was an open one until lately. The discovery of large fields of good coal in the heart of Montana, and near the line, renders it now certain that after a full supply of cheap fuel shall be regularly obtained from this source (which will be the case in a few months), the Northern Pacific will be operated as economically as any other transcontinental road.

In measuring the future of the Northern Pacific, its land grant appears, of course, next to its transportation business, as the broadest basis of prosperity. No other corporation in this country or elsewhere can show such a security to its creditors, and such a guarantee for a rapid sinking of its mortgage debt, and thereby of steadily increasing dividends to its stockholders. Even now the current land receipts are over seven per cent. of the indebtedness per annum. With the main line fully in operation, the land sales will not be long in reaching \$4,000,000 a year and over. Their rapid increase is the more certain, inasmuch as the recognition, under the recent decisions of the Interior Department, of the justice of the Company's claims to indemnity for the shortage of land within the limits of the grant, has largely increased the area available for sale.

The Oregon Railway and Navigation Company is now generally recognized as the most successful transportation enterprise in the United States, considering the shortness of its existence and the magnitude of its business.

Its gross earnings increased from \$2,949,701, in its first year, 1879-80, to \$5,074,759, in its fourth year, 1882-83. In one respect it occupies a unique position. Since the issue of \$2,000,000 bonds, at the time of the organization of the Company, it has raised twenty millions of dollars in money, for the construction of 500 miles of railroad, and the acquisition of other extensive properties by selling stock at par to its own stockholders without creating any additional debt whatever.

It is true of this controlled Company, much more than even of the Northern Pacific, that its future will be far more prosperous than its past. The absolute assurance of this lies in the peculiar advantages of the position of its main rail line along the Columbia, rendering it the natural and only drain, so to speak, of the entire great empire watered by that river and its numerous tributaries. This river line is now about to become the outlet of two distinct transcontinental systems, viz., that of the Northern Pacific and of the Union Pacific. In other words, some seven thousand miles of road will become feeders of it. The effect of this upon the earnings of the Company will be readily understood.

The Northern Pacific will be able, as mentioned elsewhere, to do through business within sixty days. The connection with the Oregon Short Line will be made within twelve months according to the formal contract entered into by the two Companies for the exchange of business, near the eastern boundary of Oregon.

As the Oregon Railway & Navigation Company's system will be the connecting link between the Northern Pacific, the Oregon Short Line, and the Union Pacific system, and the entire North Pacific coast, so the Oregon and California lines will be the connecting medium between the Oregon Railway & Navigation Company, the two northern transcontinental systems, California, and the Central and Southern Pacific systems generally, on the one side, and between the two latter, California and the North Pacific Coast regions on the other. The Oregon & California main line will be the controlling part of a through rail line commencing at San Francisco, and extending through northern California and western Oregon to Portland, and thence through western Washington to Puget Sound. This line, owing to the particular configuration of the coast belt between the Sierra Nevada, the Cascade Mountains and the Pacific Ocean, will be for all time to come the only railroad connecting these already rich, populous and steadily growing regions with each other. The commercial interchange between them, that is, the coastwise trade between California, Oregon, Washington Territory, British Columbia and Alaska, is already of great importance. Its proportions may be judged from the fact that it comprised in the past fiscal year 61,597 passengers, and 389,438 tons of miscellaneous freight, mostly general merchandise, exclusive of lumber and coal. The passenger trade especially, has outgrown steamship facilities, and will, no doubt, be absorbed by the all-rail route, as soon as it shall be opened through.

#### INCOME AND DIVIDENDS.

During the past year, three quarterly dividends of one and one half per cent. each were declared, involving the distribution of a total of \$1,650,000 to the stockholders. The general balance sheet published herewith, shows a balance of undivided profits on June 30, 1883, of \$2,880,895.03, which includes \$1,679,361 Northern Pacific dividend scrip, representing, at the market value of 90 and accrued interest, \$1,561,805.73.

The regular quarterly dividends, at the rate of ten per cent. per annum, on the Company's holding of Oregon Railway & Navigation stock, to accrue during the current fiscal year, will be as follows:

August 1, 1883,	2½ per cent. on 90,500 shares..	\$226,250.00
November 1, 1883,	" " " " " " " "	321,337.50
February 1, 1884,	" " " " " " " "	321,337.50
May 1, 1884,	" " " " " " " "	321,337.50

Total income.....\$1,190,262.50

The Northern Pacific Company accounted to its preferred stockholders, for the earnings due to them, on June 30th, 1883. There is, therefore, due to the stock, the net earnings for the year 1882-83. The main line will be completed and open for general business before October 1st. But assuming that it will be operated as a complete through line, only for nine months out of the year ending June 30th, 1884, there will be due to the preferred stock up to the close of our new fiscal year, the net income of the Company, less mortgage interest, earned and to be earned during the last fifteen months of the operation of the road as an incomplete line, and during nine months of operation as a completed line. It is understood that the Northern Pacific Company will divide regularly and in money, from and after its completion, whatever earnings the preferred stock may be entitled to. We feel, therefore, justified in including eight per cent. on our holding of preferred stock in our estimate of the income to become available during the year ending June 30th, 1884.

To sum up the available income and profits for the year 1883-84:

Balance of profits, brought forward from last year.....	\$2,880,895.03
Dividends on Oregon Railway & Navigation stock.....	1,190,262.50
Estimated dividends on N. P. preferred stock,.....	1,210,400.00

Total.....\$5,281,557.53

In addition there will be available income from loans and construction profits, to be realized during the current fiscal year.

Your Board have deemed it wise not to increase the present rate of dividends until the controlled companies shall be

in a position to reimburse our advances and to do without our assistance. The approaching completion of their roads will bring about this result before long. There will then appear to be no good reason why this Company, which has no directly owned properties to preserve, should not give to its stockholders the benefit of all its income and profits.

Your attention is invited to the accompanying general balance sheet.

Respectfully submitted,  
By order of the Board of Directors,

HENRY VILLARD,

President.

JULY 16, 1883.

#### GENERAL BALANCE STATEMENT, JUNE 30TH, 1883.

##### ASSETS.

Stocks—		
128,535 Shares Oregon R'y & N. Co. Stock..		
151,300 " Nor. Pac. R. Co. pfd. " "	\$42,613,632 06	
162,792 " com. " " "		
Less—		
* Forty per cent., installments still due on 33,035 new shares, O. R. & N. Co. ....	1,521,400 00	
		\$41,092,232 06
Northern Pacific Dividend Scrip—		
\$1,679,361 at 90 and accrued interest.....	1,561,805 73	
Construction Accounts—		
Advances on account of building branch roads	758,751 62	
First Mortgage Bonds on Branch Lines.....	7,807,000 0	
Loans due Company—		
Including advances to N. P. R. Co. ....	3,289,312 29	
Cash in Bank—		
A large portion of this was received from Northern Pacific Railroad Company (proceeds of bonds delivered June 3) too late for use that day.....	5,181,101 11	
Lands earned through construction of branch lines—		
433,000 acres at fifty cents.....	216,500 00	
		\$59,906,702 81

\* The installment due July 3d, \$760,700 was paid on that date.

##### LIABILITIES.

Capital Stock.....	\$40,000,000 00
Collateral Trust Mortgage Bonds.....	7,215,000 0
Reserve—	
To pay coupons maturing November 1st, 1883, May 1st and November 1st, 1884, being eighteen months' interest at six per cent. on \$7,215,000.....	649,350 00
Dividend—	
Due July 16th.....	600,000 00
Loans due by Company.....	8,561,457 78
Net Income—	
After deducting	
Three dividends, including that of July, 16th, 1883.	
Two years' interest on \$7,215,000. Bonds from November 1st, 1882, to November 1st, 1884, inclusive.	
Difference between subscription price and par, on bonds sold; and	
All Expenses of Management.	2,880,895 03
	\$59,906,702 81

## BOZEMAN!

### Gallatin County, Montana.

The town is picturesquely located at the head of the fertile Gallatin Valley, 1060 miles west of St. Paul, on the Northern Pacific Railroad.

The Famous Gallatin Valley is immediately tributary to Bozeman.

### THE GALLATIN VALLEY

is the largest, most productive, and oldest settled valley of Montana.

### Mines of Fine Bituminous Coal

are opened and worked, immediately east of Bozeman.

Deposits of Iron Ore, old, Silver and Copper Ores have been discovered in the adjacent Mountains.

Bozeman, the county seat of Gallatin County, is a thrifty business centre, containing more than 3,000 inhabitants, has well-established churches, schools and public buildings.

Lots in the N. P. addition to the town of Bozeman, adjacent to the railroad and depot, are now offered for sale at prices ranging from \$25 to \$1000 each.

For particulars write or apply to

R. P. GREEN, Local Agent,

J. V. BOGERT, Trustee. Bozeman, Montana.



## Prices of Northern Pacific and Oregon Securities.

FURNISHED BY DECKER, HOWELL &amp; CO., 58 BROADWAY, NEW YORK.

The following table shows the highest and lowest prices and sales of the Northern Pacific and Oregon Securities on the New York Stock Exchange, from July 3d to August 3d.

1883.	No. Pac. Com.			No. Pac. Pfd.			Oregon & Trans'l			O. R. & Nav.			Oregon Imp. St'k.			O. Imp. Bonds.		O. & T. Bonds.	
	High.	Low.	Sales.	High.	Low.	Sales.	High.	Low.	Sales.	High.	Low.	Sales.	High.	Low.	Sales.	Bid.	Asked.	Bid.	Asked.
July 3d.....	51 1/4	51 1/4	500	89 1/4	88 3/4	4,100	83 1/4	83 1/4	100	.....	.....	.....	.....	.....	.....	91 1/4	92 1/4	96 3/4	96 3/4
July 5th.....	51 3/4	51 1/2	400	89 3/4	89 1/2	3,500	84	83 3/4	2,800	.....	.....	.....	.....	.....	.....	92	92	96 3/4	97
July 6th.....	52 3/4	52	1,100	90	89 3/4	4,900	84 1/4	84 1/4	1,000	.....	.....	.....	.....	.....	.....	92 1/4	92 1/4	96 3/4	97
July 7th.....	52 3/4	52 1/4	400	89 3/4	89 1/4	1,400	84 3/4	84	1,400	.....	.....	.....	.....	.....	.....	92	92 1/4	96	97
July 9th.....	51 5/8	50 5/8	6,600	89 1/2	88	9,800	84	83	3,400	.....	.....	.....	.....	.....	.....	92 1/4	92 1/4	96	97
July 10th.....	50 5/8	50	10,300	88 1/4	87 1/4	15,100	83 1/4	82 1/4	5,300	146 1/4	146	300	.....	.....	.....	92 1/4	92 1/4	.....	96 3/4
July 11th.....	50 3/4	49	18,400	87 1/4	86	17,800	82 3/4	81 1/4	8,300	146	145	300	89	88	950	92 1/4	92 1/4	96 3/4	96 3/4
July 12th.....	49 3/4	49	11,640	87 1/4	86 1/4	15,441	82 1/4	81 1/4	4,800	144 1/4	144 1/4	100	89	88 3/4	500	92 1/4	92 1/4	.....	96 3/4
July 13th.....	49 5/8	49	5,570	87 3/4	86 3/4	11,080	82 1/4	81 1/4	2,300	.....	.....	.....	90 1/4	90	600	92 1/4	92 1/4	96 3/4	96 3/4
July 14th.....	49 1/4	48 3/4	11,410	86 3/4	85 3/4	20,661	81 1/4	80 1/4	7,400	.....	.....	.....	91	91	300	92 1/4	92 1/4	96 3/4	97
July 16th.....	48 3/4	47 3/4	15,100	85 3/4	84 1/4	17,025	80 3/4	78 1/4	11,925	.....	.....	.....	91	91	100	.....	92 1/4	96 3/4	97
July 17th.....	48 3/4	47 3/4	11,750	86 1/4	85	14,561	80 1/4	79	7,470	.....	.....	.....	90	89	210	.....	92 1/4	96	96 3/4
July 18th.....	48 3/4	48 1/4	9,700	86 3/4	85 3/4	10,275	80 3/4	79 1/4	8,269	.....	.....	.....	91	90 3/4	200	92 1/4	92	96	96 3/4
July 19th.....	48 1/4	47 1/4	8,110	86	84 1/4	19,405	79 3/4	75 3/4	19,315	.....	.....	.....	.....	.....	.....	92 1/4	92 1/4	96	96 3/4
July 20th.....	48 5/8	47 5/8	9,206	86	85	11,976	78 3/4	76 1/4	15,010	.....	.....	.....	90	90	200	91	92 1/4	96	96 3/4
July 21st.....	48 3/4	48 1/4	5,800	86 3/4	85 1/4	9,930	78	77 1/4	8,300	.....	.....	.....	91	91	200	91 1/4	92	95 1/4	96 3/4
July 23d.....	48 3/4	47 3/4	5,900	87	86	10,600	77 3/4	76	8,200	.....	.....	.....	.....	.....	.....	92	92	95 1/4	96 1/4
July 24th.....	48 5/8	47 1/4	5,300	87	85 3/4	18,100	77 1/4	75 3/4	11,300	140	136	400	.....	.....	.....	92	92	95 3/4	96
July 25th.....	49 3/4	48 5/8	5,300	88 1/4	87	20,500	77 3/4	76 1/4	15,100	.....	.....	.....	.....	.....	.....	92	92	95 3/4	96 1/4
July 26th.....	49 3/4	49 1/4	3,800	88 3/4	88	15,400	77 3/4	76 3/4	9,000	.....	.....	.....	.....	.....	.....	92	92	95 3/4	96 1/4
July 27th.....	49 1/4	48 3/4	3,700	88 3/4	87 3/4	9,800	77 3/4	76 1/4	4,700	.....	.....	.....	.....	.....	.....	91 3/4	92 3/4	95 3/4	96 1/4
July 28th.....	49 5/8	49 1/4	1,500	88 3/4	88	1,900	77 3/4	76 3/4	2,700	.....	.....	.....	.....	.....	.....	92	92	95 3/4	96 1/4
July 30th.....	49 3/4	49 1/4	1,000	88 3/4	88	5,300	77 3/4	76 1/4	4,900	.....	.....	.....	.....	.....	.....	92	92	96	97
July 31st.....	49 1/4	48 3/4	3,300	87 3/4	87 1/4	11,600	76 3/4	75 1/4	7,700	.....	.....	.....	.....	.....	.....	92	92	96	97
Aug. 1st.....	49 1/4	48 1/4	3,100	83 1/4	87 3/4	12,400	76 3/4	75 1/4	3,000	.....	.....	.....	.....	.....	.....	92 3/4	92 3/4	96	97
Aug. 2d.....	49	48 1/4	1,600	88 3/4	88 1/4	3,400	77 3/4	76 3/4	6,400	.....	.....	.....	.....	.....	.....	93 1/4	95	96	97
Aug. 3d.....	49 1/4	48 3/4	1,100	89	88 3/4	5,300	77 1/4	76 1/4	5,000	140	140	100	.....	.....	.....	93 1/4	95	96	96 3/4

**FOOTE & FRENCH,**  
BANKERS,  
— AND —  
DEALERS IN GOVERNMENT BONDS.

**NORTHERN PACIFIC**  
General Mortgage and Land Grant  
GOLD 6's FOR SALE.  
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**GOLD, BARBOUR & SWORDS,**  
10 Pine Street, New York,  
Members of the New York Stock Exchange.  
Members of the New York Mining Stock Exchange.

All classes of Negotiable Securities bought and sold, and  
advances made on same.  
Northern Pacific First Mortgage, Missouri and Pend  
d'Oreille Division Bonds and Preferred Dividend  
Certificates bought and Sold.  
Jan.-rk.

## NORTHERN PACIFIC EARNINGS.

The approximate Gross Earnings of the Northern Pacific Railroad Company for the month of July were.....\$841,000 00 Road miles, 1,701  
Corresponding month  
of last year ..... 694,067 45 " " 1,298  
Increase..... 146,932 55 " " 403

## O. R. &amp; N. CO. EARNINGS.

The earnings for the fiscal year ending June 30th, were as follows:

	Gross.	Net.
July 1st to May 31st.....	\$4,658,909	\$2,274,056
June.....	415,850	198,350
Total.....	\$5,074,759	\$2,472,406
June, 1882.....	399,268	185,317

According to official advices a very large wheat crop in Eastern Oregon and Washington is assured, and harvest about to commence.

## OREGON IMPROVEMENT CO. EARNINGS.

(Owning and operating the Pacific Coast S. S. Co., the Columbia and Puget Sound R. R. Co., and the Seattle Coal and Transportation Co.)

The earnings of all Companies for the first six months of the current fiscal year were as follows:

	Gross.	Net.
December 1st, 1882, to April 30th, 1883.....	\$1,381,314	\$360,541
May, 1883.....	374,686	144,301
Total.....	\$1,756,000	\$504,842
May, 1882.....	\$267,339	\$88,992

## NORTHERN PACIFIC RAILROAD LAND SALES.

Approximate land sales for the month of July, 1883, with corresponding month of previous year:

	Acres.	Amount.	Town Lots.	Total Amount.
July, 1883.....	40,909	\$194,833	\$9,409	\$204,242
July, 1882.....	56,944	206,445	11,260	217,705
Total Dec'se, 1883.	16,035	\$11,612	\$1,851	\$13,463
Average per acre this year, \$4.70. Last year, \$3.62.				

**Drexel, Morgan & Co.,**

WALL STREET,  
CORNER OF BROAD, NEW YORK.

**DREXEL & Co.,** No. 34 South Third Street, Philadelphia.  
**DREXEL, HARRIS & Co.,** 31 Boulevard Haussmann, Paris.

## Domestic and Foreign Bankers.

Deposits received subject to Draft. Securities bought and sold on Commission. Interest allowed on Deposits. Foreign Exchange. Commercial Credits. Cable transfers. Circulars Letters for Travelers, available in all parts of the world.

ATTORNEYS AND AGENTS OF

**Messrs. J. S. MORGAN & CO.,**

No. 22 OLD BROAD STREET, LONDON.  
Feb., '83.-cu.

## NORTHWESTERN NOTES.

CARRINGTON has more than doubled in size since May 1st.

THE price of buffalo robes at Fort Benton, Montana, by the bale, is \$6.30 apiece.

HOUSES are so scarce in both Tacoma and Olympia, W. T., that new comers pitch tents in which to live.

SURVEYORS are now at work surveying the town site of Great Falls on the Missouri River above Benton.

A NEW hotel, costing \$25,000, is nearly finished at Carrington, Dakota, the prosperous young town on the Jamestown Northern Railroad.

WHITE SULPHUR SPRINGS, Montana, is crowded with invalid visitors who come there for treatment. The summer climate is delightful.

THE Whatcom, Washington Territory, *Reveille* enjoys the distinction of being the most northwesterly paper published in the United States.

WASHBURN, DAKOTA, the new town on the Missouri River above Bismarck, near the mouth of Knife River, has a handsome and well-edited weekly paper called the *Times*.

DEVIL'S LAKE, Dakota's "inland ocean," has 280 lines of shore line of the most fantastic irregularity, and lies midway between the great valleys of the Red and the Missouri, fifty-five miles south of the international boundary.

THE Fargo foundry is casting 400 horseshoes, to be sent to the Yellowstone Park. They are to be hung in springs, the water crystallizing them almost instantaneously after once brought into contact with it. They make very beautiful ornaments.

A RECENT discovery on the head of the Cowlitz River, reveals and establishes the fact that Washington Territory can now boast of the grandest waterfall in the known world, its height being 1,500 feet. These falls are 1,300 feet higher than the famous Niagara Falls.

THE dimensions of the grand hotel in the Yellowstone National Park are 420 feet long by 60 feet wide, with a wing on each end 360 by 60. A grand hall, 20 feet wide, the whole length of the building, is the same for all the stories. There are 520 rooms, among which are 250 reception and club rooms and parlors for ladies.

MR. N. B. PINKHAM, on Monday morning, brought in from his farm, six miles northwest of this city, specimens of wheat which beat anything thus far brought to the notice of the *Republican*. The stalks are four feet and a half high, and the heads from three to five inches in length. The wheat is of the improved Scotch Fife variety.—*Fargo Republican*.

JACOB HOOVER, of the Upper Judith Valley, is in the city, having brought in a load of robes and skins, a portion of his season's catch. Jake informs us that during the past fall and winter he has killed 300 deer, 14 elk, 16 bears, 25 mountain sheep, and 2 mountain lions—all the victims of his unerring rifle. His hunting range is along the foothills from the upper Judith to the Gap, and few men in the Territory are more successful than he.—*Benton, Montana, River Press*.

THE Montana Improvement Company have now seven saw mills in active operation—one each at Weeksville, Eddy Siding, Mill City, Lavalla Creek, and three others at various points above Missoula, in the Hell Gate Cañon. The company will place one of the largest of their mills in as close prox-

imity to Missoula as can be, probably on the river at some point where logs can be secured, and will establish headquarters at that place. They will ship lumber to points east of Missoula, probably as far as Miles City.

THE "dude," the dandy and the idler of older communities have no counterpart in Dakota. Pluck and patient determination seem to be inhaled with the prairie breezes. The vast extent of still unoccupied farm lands, sufficient to give farm homes to a hundred thousand families and to furnish food for half the nation, and the certainty that a region so productive will not long remain undeveloped, are the foundation stones upon which capitalists, mechanics, professional men and settlers are building their hopes.

THE gentlemen who, in 1881, at Spokane Falls W. T., organized and incorporated the Spokane Falls and Columbia River Railway Company, are taking steps to have made, at once, a survey and location of the line between Spokane Falls and Kettle Falls, on the Columbia River. The road will be about eighty miles long, traversing the Colville Valley. This road, in case the Columbia and Kootenai River scheme, if carried out, will form a direct communication between the Northern and the Canadian Pacific, and share in the benefits arising from a development of the whole Upper Columbia region and the Moses Reservation country.

GOOD news comes in from every portion of the Red River Valley in regard to the crop prospects. Wheat is everywhere looking remarkably well. The yield bids fair to be much above the average. There has been just enough and not too much rain. The wheat fields of Cass County present a rich appearance and gives every indication of a heavy yield. Grand Forks, Trail, Griggs, Ransom and Richland show up well. Advices from Walsh, Nelson and Pembina Counties are to the effect that wheat never looked better there. From the Minnesota side of the valley came the same encouraging reports. The showing in the James River is also good, and the yield there will be large. Unless some unforeseen disaster occurs, the crop of 1883 will be the largest and best that has been harvested for years.—*Fargo Republican*.

A CORRESPONDENT of the Missoula (Montana) *Missoulian* says: "The Indian feast given in honor of the dead Nez Perce chief, Parishe, took place on the creek near Stevensville on Saturday afternoon. A large number of both sexes went from town as spectators. Parishe, like most of his tribe, was noted for accumulating wealth and was a large tax-payer for years in Bitter Root. Something over three thousand head of cayuse horses bear his brand in the hills, and he is said to have had \$8,000 in money hidden away in his cabin. A barrel of coffee and three large beehives were served in his memory. The ceremony lasted about half an hour, and consisted in giving away the dead warrior's hunting accoutrements to some of his near friends; also eighty head of horses.

DAKOTA'S aristocrat, the Count de Mores, is a thoroughly practical man of business. Securing a large tract of land in the valley of the Little Missouri, in a region bounded by limitless stock ranges and buffalo and deer walks, he set to work erecting houses, offices, stables, barns and corral, for his cattle, gathered in a settlement of farmers provided their families with a church and school-house, and took to himself 10,000 head of cattle, many flocks of sheep, and blooded horses. He dealt liberally with his poor neighbors, furnishing them with sheep and cattle to keep on shares, and looked to the organization of a refrigerator-car company, that he might command the means of getting his meat to market. He is said to have spent half a million, and good judges think he will succeed in his undertaking.—*N. Y. Sun*.

## NEW PUBLICATIONS.

THE YELLOWSTONE NATIONAL PARK,  
A MANUAL FOR TOURISTS.

Being a Description of the Mammoth Hot Springs, the Geyser Basins, the Cataracts, the Canyons, and other Features of the Land of Wonders.

By HENRY J. WINSER.

THE completion of railroad lines to the Park and of accommodations for entertaining visitors, make a guide book a necessity. This book gives to the intending tourist all necessary information, both as to the natural characteristics and chief points of interest, and describes in detail the peculiar attractions of six different routes within the Park. Twenty-four fine full-page illustrations and two excellent maps enhance the value of the descriptions. Price, 40 cents.

G. P. PUTNAM'S SONS,  
27 and 29 W. 23d Street, New York.

## JUST PUBLISHED.

## NEW SECTIONAL MAPS

—OF—

## DAKOTA AND MINNESOTA.

Exhibiting for the first time the boundary lines of the recently organized counties. All the section lines, surveys so far as made, counties, towns, villages, post-offices, rivers, creeks, etc., are accurately and clearly shown.

Size of DAKOTA, 36x48 inches. Scale 12 miles to one inch.

Size of MINNESOTA, 41x56 inches. Scale 8 miles to one inch.

## PRICES.

Printed on Bond Paper, in pocket form, - - \$1.00  
" " Heavy " mounted on rollers, 1.50  
Mounted on Rollers, cloth back, - - - 2.00

Large Scale Wall Maps and Pocket Maps of every State and Territory in the United States, and of every country in the World; Pocket Maps of all the principal cities in the United States and abroad. Baedeker's, Murray's, Harper's and Appleton's Guides to Foreign Countries and Cities. Globes, Map Racks, etc., kept in stock. Importers and publishers of Atlases and Maps of every description. Address,

RAND, McNALLY & CO.,  
Map Publishers,

148, 150, 152 & 154 Monroe St., Chicago.

June, '83--m.

Theodore Simmons,  
12 National Bank Building,  
CLEVELAND, OHIO.

—DEALER AND BROKER IN—

Railway and Mining Supplies.

June '83--r.

The Hotchkiss & Upson Co.,

—MANUFACTURERS OF—

CARRIAGE, MACHINE, PLOW, ELEVATOR AND BRIDGE  
BOLTS, NUTS, PLATES, CAST AND WROUGHT WASHERS,  
SKIN AND COACH SCREWS. Also, GIMLET  
POINT COACH SCREWS.

Price List sent on Application.

June '83--cu.

CLEVELAND, O.

EDWARD B. SMITH.

TOWNSEND DAVIS.

SMITH & DAVIS,  
General Insurance Agents

(AND FORWARDERS).

FIRE, LAKE, CANAL AND OCEAN RISKS AT CURRENT RATES.

Office: 200 Main St., Buffalo, N. Y.

April, '83--cu.

S. H. & E. Y. MOORE,  
HEAVY HARDWARE AND RAILROAD SUPPLIES,

—And Manufacturers of—

"CLIMAX" BARN DOOR HANGERS, &c.  
Railroad Hangers, Moore's Hand Hoists,  
Moore's Differential Pulley Blocks, &c.

163 & 165 LAKE ST., CHICAGO.

June '83--cu.



**THE MACHINE TOOL WORKS,**

FRED'K B. MILES, Engineer,

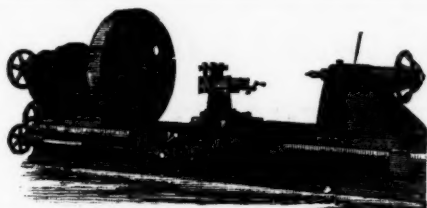
(Formerly FERRIS &amp; MILES.)

24th and Wood Streets, Philadelphia, Pa.

**Seven Prize Medals, Chicago Exposition, 1883,**

—FOR THE BEST—

Axle Turning Machinery, Car Wheel Boring and Turning Machine,  
 Hydraulic Wheel Press, Iron Planing Machine,  
 Radial Drilling Machine, Slotting Machine, Steam Hammer.  
 March, '83—cu.

**CRERAR, ADAMS & CO.,**

MANUFACTURERS AND DEALERS IN

**Railway Supplies,**

AND IMPORTERS OF

**JESSOP'S ENGLISH STEEL,**

And best English Crucible Steel and Charcoal

**IRON WIRE ROPE**

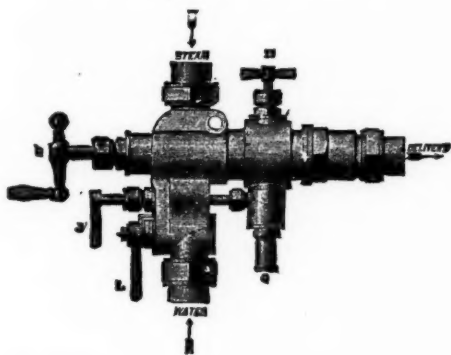
For Hoisting and Mining Purposes.

11 AND 13 FIFTH AVE., CHICAGO, ILL.

April, '83—cu.

**THE "MONITOR."**

A New Lifting Injector for Locomotives.



**CARY, OGDEN & PARKER,**  
 West 18th & Brown Sts., Chicago,

MANUFACTURES

**DRY COLORS,**

Fine Coach and Car Colors, Parker's Cement Paint,

MIXED PAINTS, ETC., ETC.

August, '83—cu.

**TRANSFER STEAMBOATS  
FOR SALE.**

Two Transfer Boats, in excellent condition, are offered for sale. Dimensions as follows:

**No. ONE**—Length on deck, 194 feet; beam, 37½ feet; hold, 5½ feet. Four boilers, two in each battery; two engines high pressure, six feet stroke, 20 inch diameter; one donkey engine to supply each set of boilers; steam capstan. A side-wheel boat, and carries six cars. Built in 1877.

**No. TWO**—Length on deck, 185 feet; beam, 33 feet; hold, 4½ feet. Stern wheel, carries five cars; two steel boilers, one in each battery, 26 feet long, 44 inches in diameter; two high pressure engines, 14 inch diameter, five feet stroke. Built in 1881.

Boats now at Bismarck, Dakota, where they would be delivered to purchaser.

All bids should be addressed to

**T. F. OAKES,**

Vice-President Northern Pacific R.R. Co.,

MILLS BUILDING, NEW YORK CITY.

Aug., '83—t.

**MINNESOTA CHIEF,**

THE BEST THRESHER ON WHEELS.

**Minnesota Giant Engine,**

THE BEST STRAW-BURNING ENGINE IN THE WORLD.

MANUFACTURED BY THE

**N. W. M'F' C & CAR CO.,**

STILLWATER, MINN.

SEND FOR PAMPHLET AND PRICE LIST.

April, '83—cu.

**FRIEDMANN'S PATENT****LOCOMOTIVE INJECTORS,**

Lifting and Non-Lifting, with all Latest Improvements.

**EJECTORS FOR WATER STATIONS,**

Construction Trains, etc.

OILERS, LUBRICATORS, ETC.

**WATKEY'S PATENT VALVE SEAT.****NATHAN & DREYFUS,**

NEW YORK.

Send for Descriptive Circular.

March, '83—cu.

**COOKE & CO.,**

12 Cortlandt St., New York,

AGENTS FOR THE

**Watson's Portable Forge,**

Light, compact, durable, cheap. Also

**GENERAL MACHINERY & SUPPLIES.**

ROOT'S BLOWERS AND FORGES.

**Water's Governors**Empire Chain,  
Crosby Gauges

AND

Pop Valves,

Steam Engines,

Boilers,

Lathes,

Planers,

Drills

Bolt Cutters,

&amp;c., &amp;c.

In writing please mention this paper.

June, '83—cu.

**TACOMA!  
ON PUGET SOUND.**

THE WESTERN TERMINAL CITY

OF

THE GREAT TRANSCONTINENTAL

**Northern Pacific Railroad.**

INVIGORATING AND AGREEABLE CLIMATE!

**MAGNIFICENT SCENERY!****GOOD OPENINGS for BUSINESS MEN,  
MANUFACTURERS and FARMERS.**

The Tacoma Land Company is now offering for sale Town Lots in Tacoma, and Agricultural Lands of Superior Quality, in the vicinity of the terminus of the Northern Pacific Railroad.

**DESIRABLE LOTS FOR RESIDENCES  
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Parties who intend moving to Washington Territory should first visit Tacoma before locating, and see the most beautifully laid out town in the Northwest, whose natural advantages will recommend themselves at once.

Full information may be obtained by applying to

**ISAAC W. ANDERSON,**

Aug. '83—C. General Manager, Tacoma, W. T.

**NORTHERN PACIFIC ADDITION**

TO THE

**CITY OF HELENA,****THE CAPITAL OF MONTANA.**

This addition lies between the Railroad depots and the old town, and must necessarily be occupied in a very short time by the rapid growth of the city.

As an investment the lots in this addition can be strongly recommended. For immediate building purposes they are unsurpassed. Helena now has nearly 10,000 inhabitants, and is evidently destined to be a large city.

JAMES H. MOE,  
Trustee.ED. STONE,  
Gen. Agent N. P. R. Co.**HELENA, MONTANA.****OHIO CENTRAL BARGE AND COAL CO.  
TOLEDO, OHIO.**

Line composed of Screw Steamers,

"W. T. GRAVES,"

"IRON DUKE,"

"IRON CHIEF,"

"IRON AGE,"

and Schooners, "DAVID DOWS," "IRON CLIFF,"

"GEO. W. ADAMS," "JAMES COUCH,"

and Iron Tug, "M. D. CARRINGTON."

**DEALERS IN COAL.**

Distributing Docks at

**DULUTH, MINN.****M. D. CARRINGTON, Pres't, TOLEDO, O.****A. E. ROOD, Gen'l Manager,****DULUTH, MINN.**

May, '83—cu.

## St. Paul Advertisements.

ESTABLISHED 1860.

### BOHN MANUFACTURING CO.

*Sash, Doors, Blinds, Mouldings, Stair Work  
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PINE AND HARD WOOD LUMBER.

WINONA, MINN.

Branch Office and Warehouse, Cor. Sixth and Wauconta Sts.,  
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WHOLESALE CROCKERY,  
GLASSWARE, LAMPS AND HOUSE FURNISHING GOODS,

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*Agents for the Oriental Powder Mills Mining and  
Blasting Powder.*

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—AND—

RAILWAY SUPPLIES,

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IMPORTERS AND JOBBERS OF

DRY GOODS AND NOTIONS,

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New York Office, 53 Leonard Street.

JOHN H. ALLEN. DANIEL H. MOON. FRANCIS B. HOWELL.

The Oldest Wholesale Grocery House in the Northwest.

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Successors to P. F. McQUINLAN &amp; Co., Established 1859.

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Canned Goods and Delicacies,  
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Hardware, Tinnery Stock and Tools,  
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## FURNITURE,

342 and 344 JACKSON STREET,

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### NOYES BRO'S & CUTLER,

IMPORTERS

—AND—

WHOLESALE DRUGGISTS,

ST. PAUL, MINNESOTA.

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ECLIPSE WIND MILLS,

TANKS, PUMPS, PIPE, Etc.

The Best Goods in the Market.

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### NICOLS & DEAN,

Iron, Nails, Steel and Heavy Hardware,

Horse Shoes, Horse Nails, Bellows, Anvils,  
Vises, Drills, Coal, and Tools of all kinds.

WAGON AND CARRIAGE MATERIAL,

CORNER FIFTH AND SIBLEY STS.,

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WHOLESALE HARDWARE,

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The largest stock in the City, at lowest market rates.  
Correspondence solicited.

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MANUFACTURERS

SASH  
BLINDS  
MOULDINGS  
HARD WOOD  
ST. PAUL

### J. P. GRIBBEN, St. Paul, Minn.

Manufacturer of and Wholesale Dealer in

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Lumber, Lath and Shingles.

April, '83—cu.

Incorporated 1880.

Capital, \$300,000.

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Manufacturers of

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Lumber, Lath and Shingles

Main Office: Drake's Block, St. Paul.

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Wholesale Iron, Nails, Steel, Heavy Hardware  
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Burden's Horse Shoes, Peter Wright's Anvils,

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Successors to P. H. KELLY &amp; CO.,

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Established 1854.

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St. Paul, Minn.

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Foreign and American Cements,

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Car Load Lots Prices made, delivered at any point.

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WHOLESALE DRUGGISTS,

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Ore assaying a specialty.

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GANG AND SULKY PLOWS,  
PRAIRIE BREAKERS,  
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STERRING PLOWS,  
ROAD PLOWS,  
ROAD SCRAPERS,  
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Corner of Third Street and Broadway, ST. PAUL, Minn.

Send for Catalogue.

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DEALERS IN  
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SEEDERS, DRILLS,  
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HAY RAKES, etc.

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WHOLESALE

**DRY GOODS AND NOTIONS,***Miner's and Lumbermen's Suits a Specialty.*

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Direct Importers of Brazilian Coffees, China and Japan Teas,  
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**Detroit Fire and Burglar Proof****Safes and Vault Doors.**

COMBINATION LOCKS PUT ON OLD SAFES.

Locksmithing and Electric or Mechanical Bell Hanging  
Safe Opening and Repairing a Specialty.

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MINERS AND SHIPPERS.

All Grades Anthracite and Bituminous

**COAL.**

DISTRIBUTING DOCKS AT DULUTH, MINNESOTA.

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**"THE MURPHY VARNISHES"**

ARE USED BY THE LEADING

CARRIAGE MANUFACTURERS,  
PASSENGER CAR BUILDERS,  
AGRICULT'L IMPL'NT MAN'RS,RAILROAD COMPANIES,  
HOUSE PAINTERS, GRAINERS,  
FURNITURE MANUF'RS, ETC.

—BECAUSE—

They have been found the most Reliable and in all respects

THE BEST IN THE WORLD.

**MURPHY & COMPANY,**

231 Broadway, New York.

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**TENTS**

FOR ANY AND ALL USES

DEALERS IN

**FISH NETS, SEINES AND TWINES,**

AND ALL

**FISHING**

MATERIALS.

**GEO. B. CARPENTER & CO.,**

(SUCCESSORS TO GILBERT HUBBARD &amp; CO.)

202 to 208 South Water Street, Chicago.

SEND FOR CIRCULARS.

**STANDARD****LAUNDRY WAX,**Preserves Linen, Gives a Beautiful  
Finish, Prevents the Iron from  
Sticking, Saves Labor.**5 CENTS A CAKE.**

Ask your Storekeeper for it.

MADE BY

**STANDARD OIL CO.,**

Cleveland, Ohio.

**THE NEW CITY OF LISBON,****DAKOTA,**COUNTY SEAT OF RANSOM COUNTY, on the FARGO  
AND SOUTHWESTERN RAILROAD, is having a**REMARKABLE GROWTH.**It is in the centre of the finest farming region in North  
Dakota. Although not a year old, it already hasSTORES, MILLS, SHOPS, HOTELS,  
NEWSPAPERS AND BANKS.There are excellent openings for business in the town, and  
for new settlers on the rich wheat lands near by.*Eligible Building Lots for Sale at Low Prices.*

Address,

**MARSH & HOLT, or****J. N. WISNER,**

Lisbon, Dakota.

June '83—r.

**CONTINENTAL****Hoof Ointment**

—CURES—

**CRACKED HOOFS, SPRAINS,  
SCRATCHES and SORES**

—IN—

**Horses, Cattle and Sheep.**Ask your Storekeeper for it, or write direct  
to the Manufacturers,**AMERICAN LUBRICATING OIL COMPANY,**

Cleveland, Ohio.

August—r'w.

**DULUTH, MINN.****C. H. GRAVES & CO.,**

Wholesale Dealers in

**SALT, LIME, CEMENT,  
PLASTER PARIS, &c.**Car Load lots shipped everywhere at lowest freight rates.  
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Manufacturers of

**Lake Superior Charcoal Pig Iron,**

Foundry, Car Wheel and Malleable.

Also, general manufacturers of Mill Machinery, Iron and  
Brass Founders, Machinists, and**HEAVY AND LIGHT FORGINGS.**

July, '83—cu.

**WASSON MANUFACTURING COMPANY,**

SPRINGFIELD, MASS.

**Railway Cars,****Car Wheels, &c.****NEW YORK OFFICE,**

18 BROADWAY.

**JAMES T. PATTEN,  
RAILWAY EQUIPMENT,**

REPRESENTING THE

Wasson Manuf'g Co. of Springfield, Mass., Railway Cars, &c.; Portland Company of Portland,  
Maine, Locomotives.**18 BROADWAY, NEW YORK.**

Jan., '83—cu.

**Portland Locomotive Works,**

PORTLAND, MAINE.

**NEW YORK OFFICE,**

18 BROADWAY.

# LIVINGSTON! LIVINGSTON! LIVINGSTON! MONTANA.

The New Town laid out by the Northern Pacific Railroad Company, at the last crossing  
of the Yellowstone River, and at the Junction of the Branch Railroad to the  
Yellowstone National Park.

## LIVINGSTON

is located at the east foot of the Belt Mountains, 1,030 miles west of St. Paul, where the low grades of the Yellowstone Division strike the heavy mountain  
grades. It is almost midway between the great lakes and the Pacific Ocean. The Railroad Company has reserved over 300 acres for the requirements of  
the future MACHINE SHOPS, Round Houses, Stock Yards and MANUFACTURING ESTABLISHMENTS at this point. Mines of fine bituminous

## COAL

now opened within eight miles of Livingston, and a branch track is being graded from the main line to the mines. The branch road to the NATIONAL  
PARK, sixty-three miles long, is now under contract to be COMPLETED NEXT JUNE. All the Tourist Travel to this Great Wonderland must pass  
through LIVINGSTON. Large deposits of FINE IRON ORE exist on the Park Line, near Livingston, as well as an abundant supply of excellent  
LIMESTONE. The Clarke's Forks

## SILVER MINES

lie directly south of Livingston. The existence of IRON ORE, LIMESTONE and COAL in close proximity to this point seem to indicate the  
probability that Livingston will hereafter become an important point for Manufacturing and Railroad business, as well as for general commercial trade.

The prices of lots range from \$20 to \$1,000 each, according to location. Lots purchased in blocks adjacent to passenger depot must be improved  
with good buildings within eight months. Other lots are without building requirements.

**TERMS:** One-quarter cash on application, balance in four, eight and twelve months, with interest at the rate of seven per cent. per annum on  
deferred payments.

Lots for sale at the office of the **GENERAL LAND AGENT N. P. R. R.**, St. Paul, Minn. Plan and price list at offices of

**NICKEUS, WILBUR & NICKOLS**, Jamestown, Dakota,  
**McKENZIE & WILCOX**, Bismarck, Dakota,

Feb., '83—ct.

And **FRANK BUSH**, Agent Land Department **N. P. R. R.**, Livingston, Montana.

HENRY S. MANNING.

EUGENE L. MAXWELL.

CHAS. A. MOORE.

**MANNING, MAXWELL & MOORE,**

MANUFACTURERS OF AND DEALERS IN ALL KINDS OF

**RAILWAY AND MACHINISTS' TOOLS AND SUPPLIES,****No. 111 LIBERTY STREET, NEW YORK.**

AGENTS FOR

The Ashcroft Manufacturing Co.  
The Consolidated Safety Valve Co.  
Morse Twist Drill and Machine Co.'s Taps, Dies, Screw  
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The Hancock Inspirator Co.  
Worcester Machine Screw Co.  
Brady's Emery Grinding Machinery.  
H. B. Bigelow & Co.'s Engines and Boilers.  
Smith's Hub Friction Clutches.  
Morgan, Williams & Co.'s Steam Hammers, Punches and  
Shears, &c.  
Gleason's Lathes and Planers.  
A. M. Powell & Co.'s Lathes and Planers.  
Fisher & Co.'s Lathes and Screw Machines.  
F. E. Reed's Lathes and Drill Presses.  
April, '83—cu.

AGENTS FOR

Keystone Portable Forge Co.  
Midvale Steel Co.'s Tires, Axles, Forgings, and Castings.  
Huntington Track Gauges.  
Saunders' Corrugated Copper Packing and Gaskets.  
Hoopes & Townsend's Nuts, Bolts, Washers, Lag Screws  
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Bett's Machine Co.'s Gauges, &c.  
Nile's Tool Works, Machine Shop and Car Tools.  
Westcott's Lathe and Drill Chucks.  
American Tool and Machine Co.'s Brass Workers Tools.  
Brainard Milling Machine Co.  
Bignall & Keeler Mfg. Co.'s Pipe Cutting Machines.  
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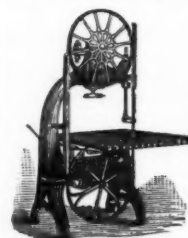
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MANUFACTURERS OF THE

LATEST IMPROVED

**Wood Working  
Machinery,**

FOR



Car Builders, Planing Mills, Cabinet, Carriage  
Railroad Shops, House Builders, Sash,  
Door and Blind Makers.

**WAREHOUSES: 109 LIBERTY STREET, NEW YORK.**

April, '83—cu.



# DARLING'S ADDITION TO MILES CITY, MONTANA.

MILES CITY, at the Junction of the fertile Tongue River and Yellowstone Valleys, continues to enjoy a steady growth, and is now the acknowledged metropolis of the lower Yellowstone country. It has already expanded beyond the limits of the original town plot, and an addition to the town site of Miles City has been laid out by me, and Lots are now offered at

## LOW PRICES TO INVESTORS AND SETTLERS.

Miles City is the centre of a vast Cattle-Raising District, and the distributing point for a section of country 200 miles North and South and West. It is one of the most important Towns on the whole line of the

## →← NORTHERN PACIFIC RAILROAD, →←

And has a very Large Business and a GREAT FUTURE.

For Description and Prices of Lots apply to

**C. W. DARLING & CO.,**  
First National Bank Building, Fargo, Dakota Territory.

### Chicago Forge Bolt Co.,

#### BOLT MAKERS.

MACHINE BOLTS. LAG SCREWS.

RODS and BOLTS for BRIDGES  
and BUILDINGS.

BOLTS MADE TO ORDER. HOT PRESSED NUTS.

Send for Price List.

Works at Office, 93 Lake Street,  
SOUTH CHICAGO. CHICAGO.

June '83-cu.

### M. M. BUCK & CO.,

Manufacturers of and Dealers in Supplies of every  
description for

Foundries, Machine Shops,

MILLS AND MINES,

In addition to a complete Line of Railway  
Supplies,

Roebbling Wire Rope, Machinery and Tools.

Special low freights to Northern and North-  
Western points, via St. Paul.

209 & 211 North 3d St., ST. LOUIS.

June '83-m.

T. B. CASEY, President, M. D. CARRINGTON, V.-Pres't,  
Minneapolis, Minn. Toledo, O.

### CARRINGTON & CASEY LAND COMPANY,

(CAPITAL \$500,000.)

Owens and offers for sale upwards of  
100,000 ACRES

—OF—

### Choice North Dakota Lands

In Foster, La Moure, Barnes and Ransom Counties.

Joint owner with the Northern Pacific R. R. Company  
of the town site of

### CARRINGTON,

Foster County, Dakota, forty-three miles from Jamestown,  
on line of Jamestown & Northern R. R., and at  
junction of the

### Mouse River and the Devil's Lake Branches.

R. R. opened to Carrington, April 2d. Buildings have, since  
then, sprung up like magic. Trade in nearly all lines is in  
operation. A strong bank is established. Two hotels are  
opened. Material for a large and attractive hotel is coming  
in. The most promising new town in North Dakota. The  
prospective

COUNTY-SEAT OF FOSTER COUNTY.

The same joint owners also offer lots in the

Town of Melville, Foster Co.,

Thirty-four miles from Jamestown, on the Jamestown &  
Northern R. R., and the

Town of Buttzville, Ransom Co.,

Fifty Miles from Fargo, on the Fargo & Southwestern R. R.

Address or call on

L. R. CASEY, Gen'l Manager,

JAMESTOWN, DAKOTA.

April-t.

### NEW YORK

### Locomotive Works,

ROME, N. Y.

New York Office,

34 Pine Street.

March, '83-cu.

### THE STANDARD STEEL WORKS.

LOCOMOTIVE AND  
CAR WHEEL

**TIRES.**

220 S. FOURTH ST., PHILADELPHIA.

Jan., '83-cu.

### Pennsylvania Steel Company,

MANUFACTURERS OF

### STEEL RAILS

FROGS, CROSSINGS, SWITCHES

AND

RAILWAY MATERIAL,

WORKS AT STEELTON, PENN.

Office: 208 S. 4th St., Phila.

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April, '83-cu.

### BARNUM RICHARDSON COMPANY,

SALISBURY, CONN.,

MANUFACTURERS OF

Charcoal Pig Iron from Salisbury Ores

AND CHILLED CAR WHEELS.

Also Manufacturers of Car Castings, Frogs, Head Blocks,  
Heel Blocks, Switch Plates, Chairs, and all other  
descriptions of Castings for Railroad Super-  
structure and Equipment. All work  
from this Establishment made  
from Salisbury Iron,  
and Warranted.

POST OFFICE ADDRESS:

LIME ROCK, CONN.

Jan.-cu.

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MANUFACTURERS OF

### CAST STEEL,

Boiler, Fire Box, and Tank Plates,

STEEL DRIVING, TRUCK, TENDER, CAR AXLES AND FORGINGS,

CLEVELAND, OHIO.

Room 24, Astor House Offices, New York.

Feb. cu.

## Northern Pacific R. R. LANDS FOR SALE.

### THE BEST HOMES

For 10,000,000 People now await  
occupancy in  
MINNESOTA, DAKOTA,  
MONTANA, IDAHO,  
WASHINGTON AND OREGON.

### THE MATCHLESS

## Northern Pacific Country.

2,000,000 FAMILIES } Of the great pop-  
10,000,000 SOULS! } ulation—no one can  
predict how great  
it will become—  
which will soon inhabit this region, the new comers from the  
older States will be the first families and leaders, socially  
and politically, in this newly opened section of the United  
States. They will all become prosperous and many will  
acquire fortunes in a short period, by turning the vast wheat  
producing lands, ready for the plow into productive farms;  
by stock raising on the immense grazing ranges; by develop-  
ing the resources of the extensive forests and mineral  
districts; and by investments in the thriving new towns  
opened for settlement all along the line of the

## Northern Pacific Railroad,

IN MINNESOTA, DAKOTA, MONTANA,  
IDAHO, WASHINGTON AND OREGON.

All persons intending removal, and settling in a new  
country, should visit this region before deciding upon a  
location elsewhere, as it produces

## Large and Sure Crops Every Year

And all the people are prosperous. While large numbers have  
secured a competency, many have acquired wealth, and  
Thousands have made fortunes this Year.

Come and examine a country which speaks for itself more  
favorably as to its great superiority over any other section,  
than any written descriptions can portray, and where every  
man can make an independent fortune.

**LANDS!** Millions and Millions of acres of low-  
priced Lands for sale by the Northern  
Pacific R. R. Co. on easy Terms, and an equal amount of  
Government Lands lying in alternate sections with the rail  
road land, are offered free to actual settlers, under the  
Homestead, Preemption and Tree Culture Laws. They are  
the cheapest and most productive lands ever offered for  
sale by any railroad company, or open for settlement under  
United States laws.

## TERMS OF SALE OF NORTHERN PACIFIC RAILROAD LANDS.

Agricultural lands of the Company, east of the Missouri  
River, in Minnesota and Dakota, are sold chiefly at \$2  
per acre, and the preferred stock of the Company will be  
received at par in payment. When lands are purchased on  
time, one-sixth Stock or Cash is required at time  
of purchase, and the balance in five equal  
annual payments, in Stock or Cash,  
with interest at 7 per cent.

The price of agricultural lands in Dakota, west of the  
Missouri river, and in Montana, ranges chiefly from \$2.00  
to \$4 per acre. If purchased on time, one-sixth  
cash, and the balance in five equal annual cash payments,  
with interest at 7 per cent. per annum.

The price of agricultural lands in Washington and Oregon  
ranges chiefly from \$2.00 to \$6 per acre. If  
purchased on time, one-fifth cash. At end of first year the  
interest only on the unpaid amount. One-fifth of principal  
and interest due at end of each of next four years. Interest  
7 per cent. per annum.

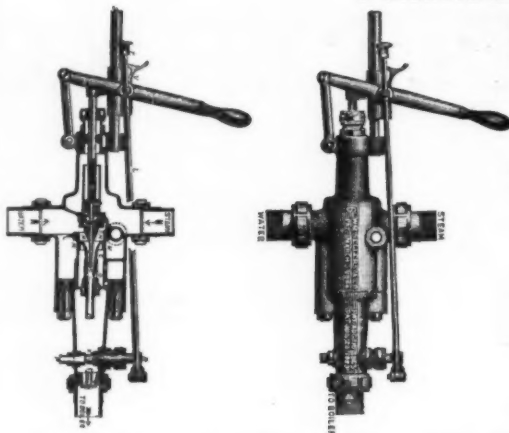
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P. B. GROAT,  
Gen'l Emigration Agent, St. Paul, Minn.

OR  
CHAS. B. LAMBORN,  
Land Commissioner, St. Paul, Minn.

Jan. '83-4.

## WILLIAM SELLERS & CO., PHILADELPHIA.



## Iron and Steel Working Machine Tools,

For Railways, Machine Shops, Forges,  
Rolling Mills, etc.,

TURN-TABLES, PIVOT BRIDGES, SHAFTING, Etc.

## Tweedle's Hydraulic Riveter,

THE 1876 LOCOMOTIVE INJECTOR

ALL BRASS, WORKED BY ONE MOTION OF A LEVER.

BRANCH OFFICE:

79 Liberty Street, New York.



## RICHARD DUDGEON,

24 COLUMBIA STREET, NEW YORK,

MAKER AND PATENTEE OF

## Improved Hydraulic Jacks,

PUNCHES, BOILER-TUBE EXPANDERS,

DIRECT ACTING STEAM HAMMERS,

Communications by letter will receive prompt attention

Jacks for Pressing on Car Wheels or Crank Pins Made to order.  
March, '83-cu.

## DILWORTH, PORTER & CO., Limited.

## RAILROAD

AND

## BOAT SPIKES,

PITTSBURGH, PA.

April, '83-cu.

## CALUMET IRON & STEEL CO.,

Chicago, Ill.,

MANUFACTURERS OF

## PIG METAL, OPEN HEARTH STEEL,

Heavy Steel Castings,

BAR IRON AND NAILS.

August, '83-cu.

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Manufacturers of Hammered, Crucible, Cast Steel **SHOVELS**,  
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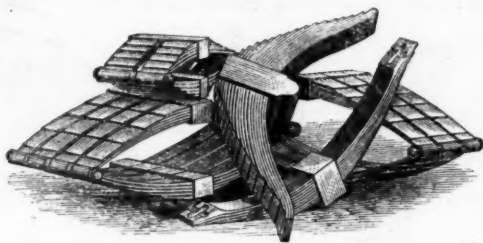
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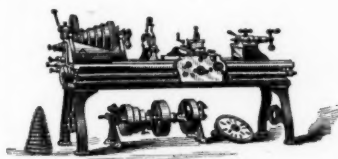
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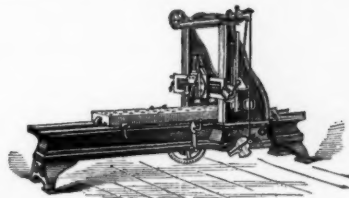


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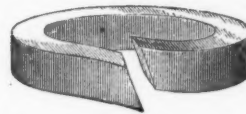
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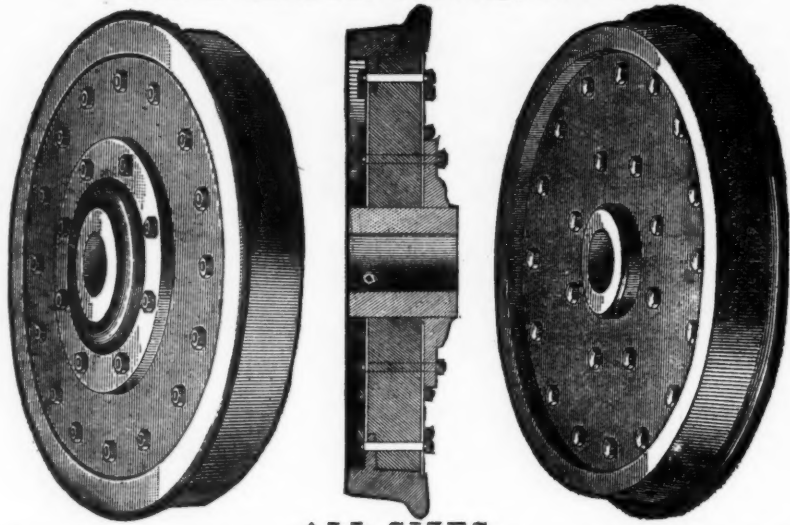
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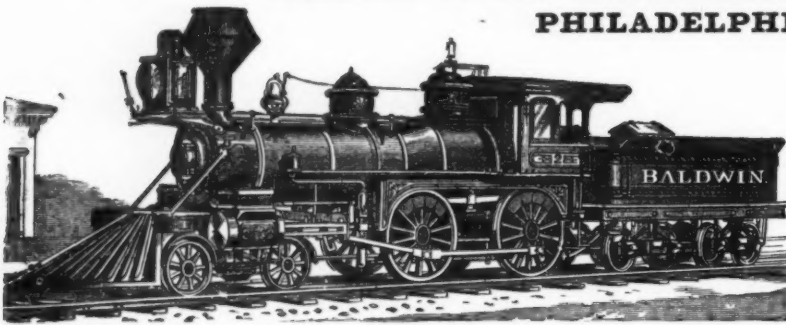
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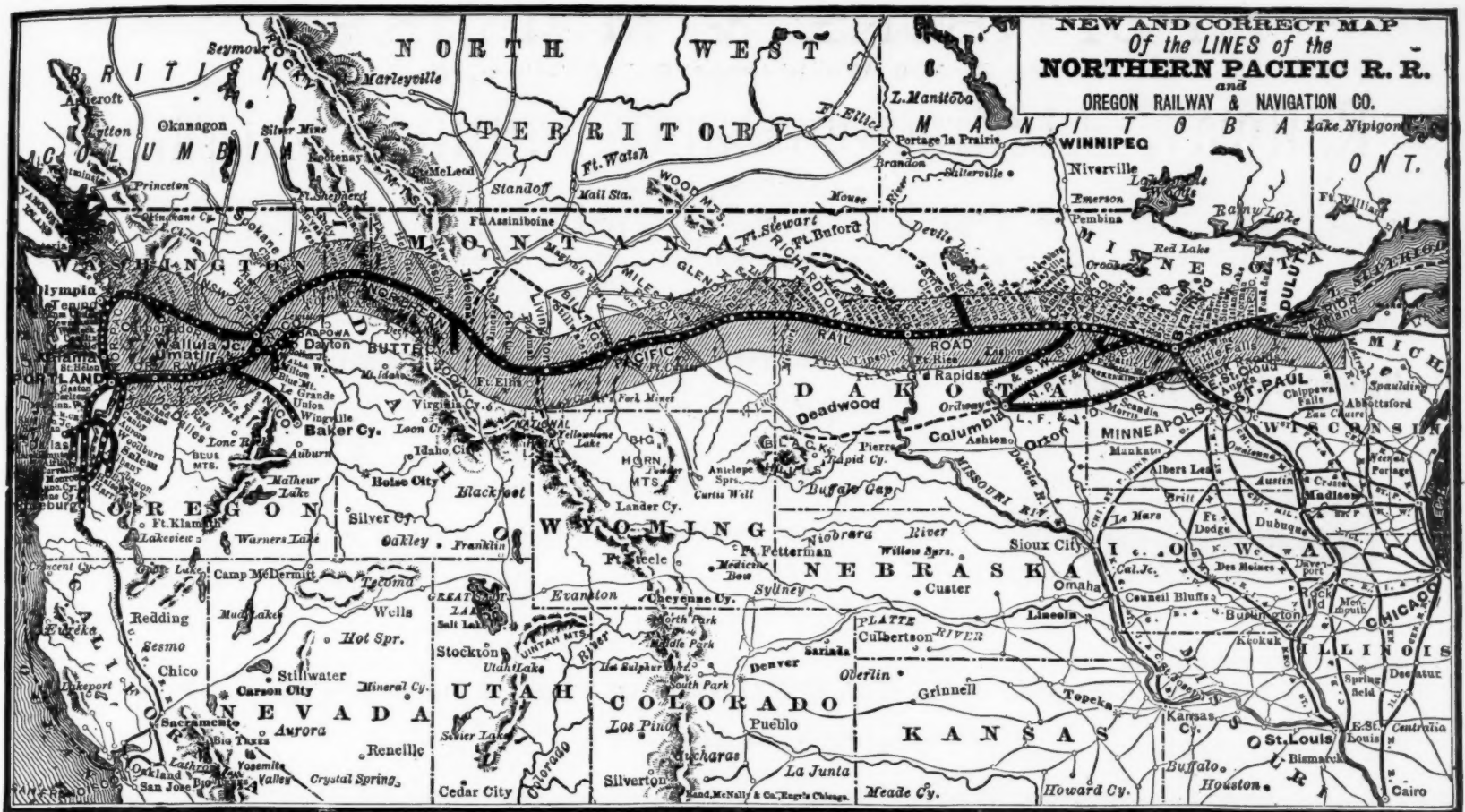
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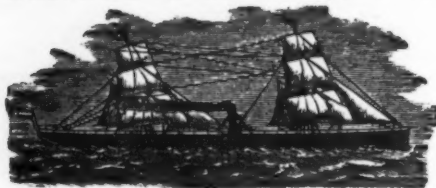
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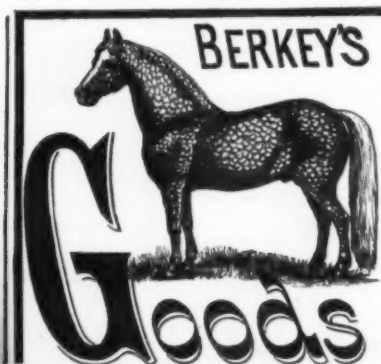
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